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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Michele Kidwell Examiner #: 77693 Date: 12/24/03
Art Unit: 3761 Phone Number 30 5 2941 Serial Number: 10/003, 204
Mail Box and Bldg/Room Location: CP2-3B16 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures; keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Liposuction Cannula

Inventors (please provide full names): Mike Fard; Christopher Hudson; Daniel McCombs

Earliest Priority Filing Date: 12/6/01

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

STAFF USE ONLY

Searcher: Janet Harrop
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: _____
Searcher Prep & Review Time: _____
Clerical Prep Time: _____
Online Time: _____

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic ☒ _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN _____
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (Specify) _____

| L Number | Hits | Search Text | DB | Time stamp |
|----------|---------|--|---|------------------|
| 18 | 15208 | elastic same fiber | USPAT; US-PGPUB | 2003/12/13 09:18 |
| 19 | 1304 | (elastic same fiber) and core and sheath | USPAT; US-PGPUB | 2003/12/13 09:18 |
| 20 | 10 | ((elastic same fiber) and core and sheath) and gel adj content | USPAT; US-PGPUB | 2003/12/13 09:20 |
| 21 | 55 | (elastic same fiber) and gel adj content | USPAT; US-PGPUB | 2003/12/13 09:22 |
| 22 | 1 | "20030069557" | USPAT; US-PGPUB | 2003/12/13 09:23 |
| 23 | 1292 | cannula same plug | USPAT; US-PGPUB | 2003/12/13 09:23 |
| 24 | 7 | (cannula same plug) and liposuction | USPAT; US-PGPUB | 2003/12/13 09:29 |
| 25 | 23250 | cannula | USPAT; US-PGPUB | 2003/12/13 09:29 |
| 26 | 7428 | "225" and vent | USPAT; US-PGPUB | 2003/12/13 09:29 |
| 27 | 7150 | cannula and (vent or hole) | USPAT; US-PGPUB | 2003/12/13 09:29 |
| 28 | 613 | (cannula and (vent or hole)) and plug same (vent or hole) | USPAT; US-PGPUB | 2003/12/13 09:30 |
| 29 | 70 | ((cannula and (vent or hole)) and plug same (vent or hole)) and aspiration | USPAT; US-PGPUB | 2003/12/13 10:11 |
| 30 | 50804 | (vent or hole) same plug | USPAT; US-PGPUB | 2003/12/13 10:13 |
| 31 | 11 | ((vent or hole) same plug) and liposuction | USPAT; US-PGPUB | 2003/12/13 10:11 |
| 32 | 366 | ((vent or hole) same plug) and aspiration | USPAT; US-PGPUB | 2003/12/13 10:15 |
| 33 | 997179 | tube or bore or lumen or cannula | USPAT; US-PGPUB | 2003/12/13 10:15 |
| 34 | 50466 | (tube or bore or lumen or cannula) and (vent or hole or opening) same plug | USPAT; US-PGPUB | 2003/12/13 10:16 |
| 35 | 10692 | (tube or bore or lumen or cannula) and (vent or hole or opening) same stopper | USPAT; US-PGPUB | 2003/12/13 10:16 |
| 36 | 1822 | ((tube or bore or lumen or cannula) and (vent or hole or opening) same plug) and ((tube or bore or lumen or cannula) and (vent or hole or opening) same stopper) | USPAT; US-PGPUB | 2003/12/13 10:16 |
| 37 | 0 | ((((tube or bore or lumen or cannula) and (vent or hole or opening) same plug) and ((tube or bore or lumen or cannula) and (vent or hole or opening) same stopper))) and liposuction | USPAT; US-PGPUB | 2003/12/13 10:16 |
| 38 | 0 | ((((tube or bore or lumen or cannula) and (vent or hole or opening) same plug) and ((tube or bore or lumen or cannula) and (vent or hole or opening) same stopper))) and liposuction | USPAT; US-PGPUB | 2003/12/13 10:16 |
| 39 | 309 | ((((tube or bore or lumen or cannula) and (vent or hole or opening) same plug) and ((tube or bore or lumen or cannula) and (vent or hole or opening) same stopper))) and suction | USPAT; US-PGPUB | 2003/12/13 10:17 |
| 40 | 21 | ((((tube or bore or lumen or cannula) and (vent or hole or opening) same plug) or ((tube or bore or lumen or cannula) and (vent or hole or opening) same stopper))) and liposuction | USPAT; US-PGPUB | 2003/12/13 10:53 |
| 41 | 184 | liposuction | EPO; DERWENT | 2003/12/13 11:11 |
| 42 | 6 | 5817050.URPN. | USPAT | 2003/12/13 10:59 |
| 43 | 0 | 20020169469.URPN. | USPAT | 2003/12/13 11:06 |
| 44 | 1596930 | cannula or tube | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/12/13 11:11 |
| 45 | 2108772 | vent or hole | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/12/13 11:11 |

| | | | | |
|----|--------|--|---|------------------|
| 46 | 660677 | plug or stopper | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/12/13 11:11 |
| 47 | 59610 | (cannula or tube) and (vent or hole) and (plug or stopper) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/12/13 11:12 |
| 48 | 1520 | ((cannula or tube) and (vent or hole) and (plug or stopper)) and aspiration | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/12/13 11:12 |
| 49 | 9 | ((("5766194") or ("5312399") or ("5129896") or ("5178605") or ("5269750") or ("5163433") or ("4886491") or ("5527273") or ("4962330")),PN. | USPAT; US-PGPUB | 2003/12/13 11:14 |
| 50 | 3348 | (604/19,22,27,28,35,43,902,239,280).CCLS. | USPAT; US-PGPUB | 2003/12/13 11:15 |
| 51 | 537 | ((604/19,22,27,28,35,43,902,239,280).CCLS.) and plug | USPAT; US-PGPUB | 2003/12/13 11:15 |



STIC Search Report

EIC 3700

STIC Database Tracking Number 110941

TO: Michele Kidwell
Location: cp2 3b16
Art Unit: 3761

Case Serial Number: 10/003204

From: Jeanne Horrigan
Location: EIC 3700
CP2-2C08
Phone: 305-5934

jeanne.horrigan@uspto.gov

Search Notes

Attached are the search results for the liposuction cannula, including searches in foreign and international patent databases and medical and general sci/tech non-patent literature databases.

I hope the attached information is useful. Please feel free to contact me (phone 305-5934 or email jeanne.horrigan@uspto.gov) if you have any questions or need additional searching on this application.

JH



STIC Search Results Feedback Form

EIC 3700

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

John Sims, EIC 3700 Team Leader
308-4836, CP2-2C08

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 3730

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

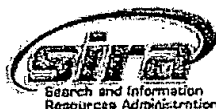
- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC3700-CP2-2C08



File 387:The Denver Post 1994-2003/Dec 26
File 471:New York Times Fulltext 90-Day 2003/Dec 28
File 492:Arizona Repub/Phoenix Gaz 19862002/Jan 06
File 494:St LouisPost-Dispatch 1988-2003/Dec 28
File 498:Detroit Free Press 1987-2003/Dec 24
File 631:Boston Globe 1980-2003/Dec 26
File 633:Phil.Inquirer 1983-2003/Dec 25
File 638:Newsday/New York Newsday 1987-2003/Dec 27
File 640:San Francisco Chronicle 1988-2003/Dec 28
File 641:Rocky Mountain News Jun 1989-2003/Dec 24
File 702:Miami Herald 1983-2003/Dec 26
File 703:USA Today 1989-2003/Dec 26
File 704:(Portland)The Oregonian 1989-2003/Dec 27
File 713:Atlanta J/Const. 1989-2003/Dec 28
File 714:(Baltimore) The Sun 1990-2003/Dec 28
File 715:Christian Sci.Mon. 1989-2003/Dec 29
File 725:(Cleveland)Plain Dealer Aug 1991-2003/Dec 28
File 735:St. Petersburg Times 1989- 2003/Dec 28
File 635:Business Dateline(R) 1985-2003/Dec 27

| Set | Items | Description |
|-----|--------|-------------------|
| S1 | 226 | FARD |
| S2 | 142221 | HUDSON |
| S3 | 3198 | MCCOMBS |
| S4 | 2272 | LIPOSUCTION |
| S5 | 0 | S1 AND S2 AND S3 |
| S6 | 18 | S1:S3 AND S4 |
| S7 | 17 | RD (unique items) |
| S8 | 137 | CANNULA? |
| S9 | 0 | S7 AND S8 |

File 348:EUROPEAN PATENTS 1978-2003/Dec W02
File 349:PCT FULLTEXT 1979-2002/UB=20031225,UT=20031218

| Set | Items | Description |
|-----|-------|-------------------------------|
| S1 | 3 | AU='FARD MIKE' |
| S2 | 2 | AU='HUDSON CHRISTOPHER J' |
| S3 | 2 | AU='MCCOMBS DANIEL L' |
| S4 | 2 | S1 AND S2 AND S3 [duplicates] |
| S5 | 1 | S1:S3 |

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200382
File 347:JAPIO Oct 1976-2003/Aug(Updated 031202)
File 371:French Patents 1961-2002/BOPI 200209

| Set | Items | Description |
|-----|-------|------------------------------------|
| S1 | 5 | AU='FARD M':AU='FARD M M' |
| S2 | 14 | AU='HUDSON C' OR AU='HUDSON C J' |
| S3 | 7 | AU='MCCOMBS D' OR AU='MCCOMBS D L' |
| S4 | 1 | S1 AND S2 AND S3 |
| S5 | 6898 | CANNULA? |
| S6 | 23 | S1:S3 NOT S4 |
| S7 | 2 | S5 AND S6 |

4/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015431584 **Image available**

WPI Acc No: 2003-493726/200346

Liposuction cannula for sculpturing selected parts of the body such as hips, has vent hole for increasing mass flow rate of fatty tissue and other debris through the cannula system

Patent Assignee: FARD M (FARD-I); HUDSON C J (HUDS-I); MCCOMBS D L (MCCO-I)
; MICROAIRE SURGICAL INSTR INC (MICR-N)

Inventor: FARD M ; HUDSON C J ; MCCOMBS D L

Number of Countries: 100 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200349653 | A2 | 20030619 | WO 2002US38973 | A | 20021206 | 200346 B |
| US 20030125681 | A1 | 20030703 | US 20013204 | A | 20011206 | 200351 |

Priority Applications (No Type Date): US 20013204 A 20011206

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|--------------|------|--------|-------------|--------------|
| WO 200349653 | A2 | E 26 | A61F-005/44 | |

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM
ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

US 20030125681 A1 A61F-005/44

Abstract (Basic): WO 200349653 A2

NOVELTY - The cannula (10) includes a tube (12) with a bore extending along its length and a vent hole (20). An assembly is connected (18) to a proximal end of the tube and an aspirator tip (14) has openings (16) positioned at another end of the tube remote from the assembly. A plug with an air passage is inserted within the vent hole such that the air passage is in fluid communication with the bore of the cannula, allowing air to flow within the bore of the tube to increase mass flow rate of fatty tissue and other debris.

USE - Liposuction for surgically contouring selected parts of the body such as abdomen, buttocks, hips and thighs.

ADVANTAGE - Increases mass flow rate of fatty tissue and other debris through the cannula system.

DESCRIPTION OF DRAWING(S) - The drawing shows a plan view of the cannula system.

cannula system (10)
tube (12)
aspirator tip (14)
openings (16)
connector assembly (18)
vent hole (20)
pp; 26 DwgNo 1/14

Derwent Class: P32

International Patent Class (Main): A61F-005/44

7/7/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013500348 **Image available**

WPI Acc No: 2000-672289/200065

Powered assisted liposuction and lipoinjection equipment has cannula with a reciprocating member connected to compressible air source with hose engaging member

Patent Assignee: MICROAIRE SURGICAL INSTR INC (MICR-N)

Inventor: **FARD M** ; MOZSARY P G; PASCALOFF J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6139518 | A | 20001031 | US 9737389 | A | 19970207 | 200065 B |
| | | | US 97814871 | A | 19970311 | |
| | | | US 97917774 | A | 19970827 | |
| | | | US 99273768 | A | 19990322 | |

Priority Applications (No Type Date): US 9737389 P 19970207; US 97814871 A 19970311; US 97917774 A 19970827; US 99273768 A 19990322

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--|
| US 6139518 | A | 13 | A61B-017/20 | Provisional application US 9737389 CIP of application US 97814871 Div ex application US 97917774 Div ex patent US 5911700 |

Abstract (Basic): US 6139518 A

NOVELTY - The power assisted liposuction and lipoinjection equipment comprises **cannula** (10), handle (12) and reciprocating member (14) connected to compressible air source by connector (18). The speed of reciprocation is variable under control lever (20). A hose engaging member (38) is part of the connector (24) being part of the **cannula**. The rear of the **cannula** extends through cylindrical bore (42) with vacuum hose held on the handle by hose clamping slot (32).

USE - For use as a powered assisted liposuction and lipoinjection equipment.

ADVANTAGE - The connector is radially offset from the **cannula** from the reciprocating member to position, which is axially in alignment with the vacuum hose, avoiding bend regions and enhancing the suction.

DESCRIPTION OF DRAWING(S) - Figure of a side view of the power assisted liposuction and sectional view of the **cannula** connector.

Cannula (10)

Handle (12)

Reciprocating member (14)

Connector (18,24)

Control lever (20)

Hose engaging member (38)

Hose clamping slot (32)

Cylindrical bore (42)

pp; 13 DwgNo 1a,5/11

Derwent Class: P31

International Patent Class (Main): A61B-017/20

7/7/2 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012089525 **Image available**

WPI Acc No: 1998-506436/199843

Power assisted liposuction handpiece - has hand-held housing, reciprocating member, cannula, and connector mounted on cannula releasably connected to portion of reciprocating member exterior housing

Patent Assignee: MICROAIRE SURGICAL INSTR INC (MICR-N); MICROAIRE SURGICAL INSTR (MICR-N)

Inventor: MOZSARY P G; **FARD M** ; MOZSARY PETER G; PASCOLOFF J; PASCALOFF J

Number of Countries: 080 Number of Patents: 009

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|---------------|------|----------|---------------|------|----------|----------|
| WO 9840021 | A1 | 19980917 | WO 98US4535 | A | 19980309 | 199843 B |
| AU 9866928 | A | 19980929 | AU 9866928 | A | 19980309 | 199906 |
| US 5911700 | A | 19990615 | US 97814871 | A | 19970311 | 199930 |
| | | | US 97917774 | A | 19970827 | |
| EP 1006895 | A1 | 20000614 | EP 98909046 | A | 19980309 | 200033 |
| | | | WO 98US4535 | A | 19980309 | |
| BR 9808317 | A | 20000516 | BR 988317 | A | 19980309 | 200035 |
| | | | WO 98US4535 | A | 19980309 | |
| MX 9908365 | A1 | 20000801 | MX 998365 | A | 19990910 | 200137 |
| US 6258054 | B1 | 20010710 | US 97814871 | A | 19970311 | 200141 |
| | | | US 97917774 | A | 19970827 | |
| | | | US 99273768 | A | 19990322 | |
| | | | US 2000634847 | A | 20000808 | |
| JP 2001514559 | W | 20010911 | JP 98539655 | A | 19980309 | 200167 |
| | | | WO 98US4535 | A | 19980309 | |
| ES 2171369 | T1 | 20020916 | EP 98909046 | A | 19980309 | 200270 |

Priority Applications (No Type Date): US 97917774 A 19970827; US 97814871 A 19970311; US 99273768 A 19990322; US 2000634847 A 20000808

Patent Details:

| Patent No | Kind | Lan | Pg. | Main IPC | Filing Notes |
|--|------|-----|-----|-------------|--|
| WO 9840021 | A1 | E | 39 | A61B-017/20 | |
| Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW | | | | | |
| Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW | | | | | |
| AU 9866928 | A | | | | Based on patent WO 9840021 |
| US 5911700 | A | | | | CIP of application US 97814871 |
| EP 1006895 | A1 | E | | A61B-017/20 | Based on patent WO 9840021 |
| Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE | | | | | |
| BR 9808317 | A | | | A61B-017/20 | Based on patent WO 9840021 |
| MX 9908365 | A1 | | | A61B-017/20 | |
| US 6258054 | B1 | | | A61B-017/20 | CIP of application US 97814871 Div ex application US 97917774 Cont of application US 99273768 Div ex patent US 5911700 Cont of patent US 6139518 |
| JP 2001514559 | W | | 33 | A61B-017/22 | Based on patent WO 9840021 |
| ES 2171369 | T1 | | | A61B-017/20 | Based on patent EP 1006895 |

Abstract (Basic): WO 9840021 A

The handpiece includes a handle (12) which provides power to reciprocate a **cannula** (10) back and forth during surgery. The **cannula** (10) can be connected to the handle (12) by a connector (24) that is affixed to, integrally formed with, or selectively joinable to a reciprocating member (14).

The handle may be configured such that the reciprocating member is selectively detachable, thereby, allowing the handle to be used for additional surgical procedures such as sawing or drilling. A vacuum hose (26) is connected to the **cannula** such that vacuum pressure can be exerted through the **cannula** for aspirating severed fat tissue. The connector may radially offset the **cannula** from the reciprocating

member to a position which is axially in alignment with the vacuum hose, thereby avoiding bend regions and enhancing suction.

USE - For surgically removing fat tissue from selected portions of patient's body.

ADVANTAGE - Is simple in construction, and provides improved control in direction and accuracy of fat removal, i.e. eliminates bumpiness at edges of operated areas, making it possible to easily remove small patches at the neck etc.

1A, 1B/11

Derwent Class: P31; P34

International Patent Class (Main): A61B-017/20; A61B-017/22

International Patent Class (Additional): A61B-017/00; A61B-017/32;

A61M-037/00

File 155:MEDLINE(R) 1966-2003/Dec W4

File 5:Biosis Previews(R) 1969-2003/Dec W3

File 73:EMBASE 1974-2003/Dec W3

File 34:SciSearch(R) Cited Ref Sci 1990-2003/Dec W3

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

| Set | Items | Description |
|-----|-------|--|
| S1 | 6 | AU='FARD M' OR AU='FARD M.' |
| S2 | 2 | AU='FARD MIKE' |
| S3 | 37 | AU='HUDSON C J' |
| S4 | 16 | AU='HUDSON C.J.' |
| S5 | 23 | AU='HUDSON CJ' |
| S6 | 2 | AU='HUDSON CHRIS J' |
| S7 | 17 | AU='HUDSON CHRISTOPHER' OR AU='HUDSON CHRIS' |
| S8 | 313 | AU='HUDSON C' |
| S9 | 61 | AU='HUDSON C..' |
| S10 | 4 | AU='MCCOMBS D' OR AU='MCCOMBS D L' |
| S11 | 2 | AU='MCCOMBS D.' |
| S12 | 0 | S1:S2 AND S3:S9 AND S10:S11 * |
| S13 | 77624 | CANNULA? |
| S14 | 1 | S1:S11 AND S13 |

14/7/1 (Item 1 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0013078802 BIOSIS NO.: 200100250641

Powered assisted liposuction and lipoinjection equipment

AUTHOR: Mozsary Peter G (Reprint); Fard Mike ; Pascaloff John

AUTHOR ADDRESS: Valley, CA, USA**USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office
Patents 1239 (5): Oct. 31, 2000 2000

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A power assisted liposuction/lipoinjection handpiece includes a handle (12) which provides power to reciprocate a cannula (10) back and forth during surgery The cannula (10) can be connected to the handle (12) by a connector (24) that is affixed to, integrally formed with, or selectively joinable to a reciprocating member (14). Benefits in sterilization, distribution and surgical use can be realized when the cannula (10) and connector (24) are joined together, such that the surgeon merely

needs to remove the **cannula** (10) from the package and connect it to a reciprocating member of a powered handle (12). The handle (12) may be configured such that the reciprocating member (14) is selectively detachable; thereby, allowing the handle (12) to be used for additional surgical procedures such as sawing or drilling. A vacuum hose (26) is connected to the **cannula** (10) such that vacuum pressure can be exerted through the **cannula** (10) for aspirating severed fat tissue. Preferably, the connector (24) radially offsets the **cannula** (10) from the reciprocating member (14) to a position which is axially in alignment with the vacuum hose (26); thereby avoiding bend regions and enhancing suction.

File 155:MEDLINE(R) 1966-2004/Jan W1

File 5:Biosis Previews(R) 1969-2003/Dec W3

File 73:EMBASE 1974-2003/Dec W3

| Set | Items | Description |
|------------|----------|---|
| S1 | 35908 | CANNULA? ? |
| S2 | 747509 | CATHETER? ? OR TUBE OR TUBES OR TUBING OR TUBUL? OR PIPE OR PIPES OR PIPET? OR CONDUIT? |
| S3 | 2207 | BOREHOLE? OR VENTHOLE? OR (BORE OR VENT) (HOLE OR HOLES) |
| S4 | 122805 | APERTURE? OR OPENING? OR BORE OR BORES |
| S5 | 22532 | PLUG? OR STOPPER? |
| S6 | 30314 | AIRFLOW? OR AIRSTREAM? OR AIR (FLOW? OR STREAM? OR PASSAGE?) |
| S7 | 4203 | LIPOSUCTION? OR LIPECTOMY OR LIPOLYS?S(S) SUCTION? OR BODY (CONTOUR? OR SCULPT?) (2N) SURGER??? |
| S8 | 2438 | 'LIPECTOMY' OR DC='E4.680.450.' OR R3:R6 OR R12 OR R13 OR R14 |
| S9 | 0 | S1 AND S3 AND S5 AND S6 |
| S10 | 132 | S1:S2 AND S3:S4 AND S5 |
| S11 | 5 | S10 AND S6 |
| S12 | 0 | S11 AND S7:S8 |
| S13 | 0 | S10 AND S7:S8 |
| S14 | 0 | S11/2002:2003 |
| S15 | 5 | S11 |
| S16 | 3 | RD (unique items) |
| S17 | 175 | S1 AND S8 |
| S18 | 6 | S3:S4 AND S17 |
| S19 | 6 | S18 NOT S15 |
| S20 | 5 | RD (unique items) |
| S21 | 402 | S1:S2 AND S7:S8 |
| S22 | 21 | S3:S4 AND S21 |
| S23 | 0 | S5 AND S22 |
| S24 | 0 | S5 AND S21 |
| S25 | 0 | S6 AND S22 |
| S26 | 15 | S22 NOT (S18 OR S15) |
| S27 | 13 | RD (unique items) |
| S28 | 6 | S27/2002:2003 |
| S29 | 7 | S27 NOT S28 |
| S30 | 7 | Sort S29/ALL/PY,A |

16/6/1 (Item 1 from file: 155)

03533100 81225123 PMID: 7244428

Partial airway occlusion during sleep and waking in the dog.

Jan 1981

16/6/2 (Item 1 from file: 5)

0013082737 BIOSIS NO.: 200100254576

Effect of end-inspiratory lung volume on breath-hold duration in garter snakes

2001

16/7,K/3 (Item 2 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0012843547 BIOSIS NO.: 200100015386

Corporeal access tube assembly and method

AUTHOR: Quinn David G

JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1234 (4): May 23, 2000 2000

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A corporeal access assembly including a **tube** segment having a body formed of silicone rubber and containing a coil spring embedded therein. The silicone rubber has a low durometer hardness of about 35 on the A scale. The **tube** segments have relatively large diameter liquid flow passages therethrough for all French sizes, from 12Fr to 24Fr. The body wall thickness for all French sizes remains the same. An air lumen is provided in one embodiment of the **tube** segment, with a set connector attached which has a removable **plug** for blocking or **opening** an **air passage** to a retention balloon.

DESCRIPTORS:

METHODS & EQUIPMENT: corporeal access **tube** assembly...

...bladder access **tube** assembly, gastrostomy access **tube** assembly, improved flow rates, medical equipment

20/7,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

10466718 96273868 PMID: 8667580

[Early results of our 1-year experience in using lipo-aspiration]

Ranni rezultati ot ednogodishniia ni opit pri prilozhenieto na lipoaspiratsiia.

Boltadzhiev N; Vachkova K; Petrov V

Khirurgiia (BULGARIA) 1995, 48 (3) p34-5, ISSN 0450-2167

Journal Code: 0376355

Document type: Journal Article ; English Abstract

Languages: BULGARIAN

Main Citation Owner: NLM

Record type: Completed

Lipoaspiration is a method of subcutaneous fatty tissue reduction by vacuum aspiration through a **cannula** or syringes, using one or more incisional **openings**. Lipoaspiration is indeed a revolution in the surgical modelling of a silhouette, and nowadays it is widely diffused and practically implemented worldwide. At the cost of a small scar any subcutaneous fatty accumulation lends itself successfully to correction. Virtually, this means that the whole body--from chin to ankle--may undergo remodelling. Lipos aspiration is successful in correcting the deep, so-called "cold adipose tissue" (graissees froides) which is irresponsive to diet reduction.

Record Date Created: 19960806

Record Date Completed: 19960806

Descriptors: **Lipectomy** --utilization--UT; Adolescent; Adult; Aged; Bulgaria; **Lipectomy** --instrumentation--IS; **Lipectomy** --statistics and numerical data--SN; Middle Age

20/7,K/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

06710158 90336175 PMID: 2199109

Liposuction of lipomas.

Pinski K S; Roenigk H H

Department of Dermatology, Northwestern University, Chicago, Illinois.

Dermatologic clinics (UNITED STATES) Jul 1990, 8 (3) p483-92, ISSN 0733-8635 Journal Code: 8300886

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

When lipomas reach 4 cm or more in size or are multiple, **liposuction** becomes an excellent alternative to excisional surgery. The basic concept is that fat lobules are bluntly broken down or curetted by a **cannula** and then removed through the **cannula**'s **aperture** by a vacuum force generated from a suction machine. There are few minor sequelae, and these are rarely of a prolonged nature. The benefits of **liposuction** are decreased surgical time, a shorter scar, a better final contour, and the ability to remove several lipomas through one **opening**. In addition, **liposuction** surgery is a useful modality for the removal of lipomas because of the low recurrence rate and minimal malignant potential of these tumors. (59 Refs.)

Record Date Created: 19900913

Record Date Completed: 19900913

Descriptors: **Lipectomy** ; *Lipoma--surgery--SU; **Lipectomy** --methods--MT; Lipomatosis--surgery--SU; Liposarcoma--surgery--SU; Sex Factors; Skin Neoplasms--surgery--SU

20/7,K/5 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

04633686 84277156 PMID: 6464840

Body sculpturing by lipo-suction extraction.

Dolsky R L

Aesthetic plastic surgery (UNITED STATES) 1984, 8 (2) p75-83, ISSN 0364-216X Journal Code: 7701756

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Classical open surgical contouring and sculpturing of the body has required significant scarring with long incisions and wide depressed scars. During the last decade, a small number of European surgeons have pioneered techniques for suction **lipectomy**. Illouz introduced the concept of lipolysis and blunt **cannula** extraction. The method described herein, which is termed lipo-suction, is a dry technique. No lipolytic solutions or local anesthetic solutions are injected. The technique relies on mechanical disruption and suction extraction of adipose tissue. The instrument is a rigid blunt-ended extractor with dull **apertures**. Postoperative care is a significant factor in reducing the rate of seroma formation to less than 1%.

Record Date Created: 19840918

Record Date Completed: 19840918

30/7/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

04834263 85140618 PMID: 3975299

The helical opening in suction cannulas for lipolysis.

Drever J M

Plastic and reconstructive surgery (UNITED STATES) Mar 1985, 75 (3) p442-3, ISSN 0032-1052 Journal Code: 1306050

Document type: Letter

Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19850328
Record Date Completed: 19850328

30/7/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)
(c) format only 2003 The Dialog Corp. All rts. reserv.
10451743 96258470 PMID: 8682687

Submandibular tissue obstruction of tracheostomy tube: reversal with "chin sling".

Mallepalli J; Gonzalez I; Ng A; Andresen A F; Brandstetter R D
Department of Medicine, New Rochelle Hospital Medical Center, NY 10802, USA.

Heart & lung - the journal of critical care (UNITED STATES) Mar-Apr 1996, 25 (2) p158-60, ISSN 0147-9563 Journal Code: 0330057

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

We report on a 55-year-old woman with a tracheostomy who had unexplained respiratory failure from acute nocturnal shortness of breath. During the second day of admission, the patient noticed that her "second chin" folded over the tracheostomy on neck flexion, occluding her artificial way. The patient jury-rigged a strap to retain the submental tissue from occluding the opening of the tracheostomy **tube**. She was subsequently free from obstructive symptoms with good oxygen saturation even with neck flexion. She was consequently discharged with a presumptive diagnosis of acute upper airway obstruction. We believe that this unusual complication of the tracheostomy **tube** may be more common than appreciated. Accordingly, patients with a tracheostomy should be evaluated through a full range of body and neck positions. Increases in body fat and tissue relaxation should be suspected as possible causes occlusion of tracheostomy **tubes**. The application of a "chin sling" can reverse this unusual upper airway obstruction until definitive correction by surgical **lipectomy** is performed.

Record Date Created: 19960822

Record Date Completed: 19960822

30/7/5 (Item 5 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0013020328 BIOSIS NO.: 200100192167

Device for suction-assisted lipectomy and method of using same

AUTHOR: Bass Lawrence S (Reprint)

AUTHOR ADDRESS: 4 Garden St., Great Neck, NY, 11021, USA**USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office
Patents 1237 (3): Aug. 15, 2000 2000

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A device is described which allows simultaneous application of suction or vacuum for evacuation of fat with application of energy to the

fat inside an **opening** in a **cannula** . A pair of electrodes is situated within the cavity of the **cannula** just under the surface of **cannula** tip **opening** (s) or as part of the walls of such **openings** . The electrodes are spaced to allow coagulation of fat entering the **cannula** . Irrigation may be applied in a continuous or discontinuous or intermittent stream within the **cannula** to cool the tip and facilitate removal of suctioned tissue and prevent buildup of debris on electrodes. A method for using the **cannula** to remove adipose tissue or fat destroyed by the energy application through the use of suction with mechanical motion of the **cannula** , with energy application and optionally with the use of irrigation is also disclosed.

30/7/6 (Item 6 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0012996691 BIOSIS NO.: 200100168530

Highly flexible, reinforced swan neck liposuction cannulas

AUTHOR: Weber Paul J (Reprint); DaSilva Luiz B; Weber Michael R

AUTHOR ADDRESS: 1 Seneca Rd., Ft. Lauderdale, FL, 33308, USA**USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office
Patents 1236 (3): July 18, 2000 2000

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: The flexible **cannulas** are constructed of metal and plastic, with the metal **cannulas** having diameters of between 2.0 and 3.5 mm, and with the plastic **cannulas** having diameters greater than 3.5 mm (i.e., 3.5 to 6.0 mm). These long shaft flexible **cannulas** , when utilized in combination with a reinforced neck, allow the **cannula** point of entry to act as a fulcrum (with an optional interposed insert) in concert with the surgeon's guiding hand to deflect the **cannulas** . The **cannula** tip is preferably highly beveled with an adjacent set of three **openings** , and the **cannula** easily penetrates fibrous fat and may reach fat deposits relatively distant from the entrance wounds. The long shaft, highly flexible, reinforced swan neck **cannulas** move in an easily controllable manner within the subcutaneous tissue below the dermal envelope in an arciform fashion. Benefits include a reduced need to move a patient's body position intraoperatively. The swan neck has been reinforced to provide the needed additional stability at handle/shaft junction to help the surgeon increase leverage on the **cannula** shaft. The long, flexible plastic **cannula** shafts are provided central metal "memory" reinforcing wires of varying thicknesses along the length thereof which allow controlled rigidity of the long plastic shafts, and enable the **cannulas** to be bent into a semicircle without breaking and yet return to their original shape.

30/7/7 (Item 7 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

0013274862 BIOSIS NO.: 200100446701

Power assisted liposuction device

AUTHOR: Poole James (Reprint)

AUTHOR ADDRESS: P.O. Box 488, Santa Paula, CA, 93060-0488, USA**USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1245 (2): Apr. 10, 2001 2001

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A method and apparatus is described for performing a **liposuction** procedure by means of a power-assisted **liposuction** device. The apparatus comprises a hand-holdable handle assembly (enclosing a gas driven reciprocating piston rod), a detachable **cannula**, an aspirator pump attached to the hand-holdable handle assembly and a foot pedal assembly that includes a vibrator element for regulating the supply of gas to the hand-holdable handle assembly. The hand-holdable handle assembly generally consists of a barrel, a hollow piston rod which reciprocates relative to the barrel, a seal body, an end cap (having a internal aspirated chamber), an atmospheric access return gallery, and a return spring chamber. Detachably coupled to the hand-holdable handle assembly by means of a quick disconnect is a hollow **cannula**, the distal end of which contains an aspiration **aperture**. The foot pedal assembly generally consists of a pedal bell, a metering chamber and a vibrator element, all of which together allow the operator to regulate the flow of gas to the hand-holdable handle assembly, (and, correspondingly, the reciprocation of the hollow piston rod and the hollow **cannula**) Finally, the hand-holdable handle assembly and the hollow **cannula** are constructed such that they, together with the necessary **tubing**, may be easily sterilized.

File 34:SciSearch(R) Cited Ref Sci 1990-2003/Dec W4
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 144:Pascal 1973-2003/Dec W2
File 2:INSPEC 1969-2003/Dec W2
File 6:NTIS 1964-2003/Dec W4
File 8:EI Compendex(R) 1970-2003/Dec W3
File 99:Wilson Appl. Sci. & Tech Abs 1983-2003/Nov
File 65:Inside Conferences 1993-2003/Dec W4
File 94:JICST-EPlus 1985-2003/Dec W3
File 35:Dissertation Abs Online 1861-2003/Nov
File 95:TEME-Technology & Management 1989-2003/Dec W2

| Set | Items | Description |
|-----|---------|--|
| S1 | 13612 | CANNULA? ? |
| S2 | 1230718 | CATHETER? ? OR TUBE OR TUBES OR TUBING OR TUBUL? OR PIPE OR PIPES OR PIPET? OR CONDUIT? |
| S3 | 54140 | BOREHOLE? OR VENTHOLE? OR (BORE OR VENT) () (HOLE OR HOLES) |
| S4 | 434557 | APERTURE? OR OPENING? OR BORE OR BORES |
| S5 | 75871 | PLUG? OR STOPPER? |
| S6 | 80421 | AIRFLOW? OR AIRSTREAM? OR AIR() (FLOW? OR STREAM? OR PASSAGE?) |
| S7 | 2418 | LIPOSUCTION? OR LIPECTOMY OR LIPOLYS?S(S) SUCTION? OR BODY() (CONTOUR? OR SCULPT?) (2N) SURGER??? |
| S8 | 356 | S1:S2 AND S3:S4 AND S5 |
| S9 | 6 | S6 AND S8 |
| S10 | 0 | S7 AND S9 |
| S11 | 0 | S9/2002:2003 |
| S12 | 6 | S9 |
| S13 | 5 | RD (unique items) |
| S14 | 207 | S1:S2 AND S7 |
| S15 | 0 | S5 AND S6 AND S14 |
| S16 | 0 | S5 AND S14 |
| S17 | 0 | S6 AND S14 |
| S18 | 3 | S3:S4 AND S14 |
| S19 | 3 | S18 NOT S12 |

13/6/2 (Item 1 from file: 6)

1405056 NTIS Accession Number: NTN88-0960

Hydrogen/Air-Ignition Torch: The torch is simple, reliable, and
economical (NTIS Tech Note)
Nov 88

13/7/1 (Item 1 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03436768 INSPEC Abstract Number: A89098750

Title: Blowing a U- tube seal

Author(s): Gardner, G.C.; Oates, H.S.

Author Affiliation: Central Electr. Res. Labs., Leatherhead, UK

Journal: Nuclear Engineering and Design vol.113, no.1 p.131-40

Publication Date: April 1989 Country of Publication: Netherlands

CODEN: NEDEAU ISSN: 0029-5493

U.S. Copyright Clearance Center Code: 0029-5493/89/\$03.50

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Experimental (X)

Abstract: Experiments were carried out with an 84 mm bore U- tube seal
charged with water but in the fault condition with air being blown through.
With steady state blowing, the overall pressure drop, the amount of water

in the system and the splash height from the average water level in the discharge limb to the overflow were measured. Also the amount of water expressed by a Dumitrescu-Taylor bubble when an **air flow** was suddenly imposed was measured. The major part of all the measured parameters can be estimated using Gardner's (1980) correlation for voidage, Nicklin, Wilkes and Davidson's (1962) equation for the velocity of a Dumitrescu-Taylor bubble and a tentative new splash height correlation. The correction factors due to end effects necessary to get complete agreement between the experimental measurements and the estimates are presented. The results have application to loop seal blowout in a PWR loss of coolant accident. (3 Refs)

Subfile: A

13/7/3 (Item 2 from file: 6)

DIALOG(R)File 6:NTIS

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0844854 NTIS Accession Number: PB80-214299/XAB

Induced Air Flow Self-Cleaning Spray Nozzle

(Patent Application)

Fraleay, J. E. ; Sommers, E. F. ; Strang, S. ; McConnell, W. C.

Department of the Interior, Washington, DC.

Corp. Source Codes: 004199000

Report No.: PAT-APPL-954 026; PATENT-4 200 232

Filed 23 Oct 78 patented 29 Apr 80 6p

Languages: English Document Type: Patent

Journal Announcement: GRANT8024

Supersedes PB-292 218

This Government-owned invention available for U.S. licensing and, possibly, for foreign licensing. Copy of application available NTIS.

NTIS Prices: Not available NTIS

Country of Publication: United States

The spray nozzle forming the subject matter herein relates to a main central material coating **conduit** with a fluid spray assembly mounted on it near its discharge end **opening**. The spraying assembly has a series of discharge holes facing in the same direction as the main **conduit opening** and encircling it. The front discharge section of the main **conduit** is gradually tapered so that it narrows down towards the opened end. Between the tapered front end of the main **conduit** and the closest inner side surface of the spray assembly there is formed a space which encircles the main **conduit**. An **airflow** is induced through this space as air discharges occur at the main **conduit**. This induced **airflow** acts to clean the nozzle and prevent **plugging** by externally mixed material. The primary object of the invention is an improved self-cleaning non- **plugging** spray nozzle.

13/7/4 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

02246765 JICST ACCESSION NUMBER: 95A0029570 FILE SEGMENT: JICST-E

Study on the Perforated- Plug Muffler.

SUZUKI SHOJI (1); SHIBATA SATORU (1); KATO AKIRA (1)

(1) Hosei Univ.

Nippon Kikai Gakkai Ryutai Kogaku Bumin Koenkai Koen Ronbunshu, 1994,
VOL.1994, PAGE.29-30, FIG.5, REF.1

JOURNAL NUMBER: L0394AAV

UNIVERSAL DECIMAL CLASSIFICATION: 534.2+534.8

LANGUAGE: Japanese

COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

ABSTRACT: There is no information for the design of mufflers of perforated-**plug** type. Therefore, the purpose of this study is to establish the theory for perforated-**plug** muffler. We examine an effect of hole pitch of perforated ~~pipe~~, hole diameter and the **opening** ratio of hole area (m) for noise reduction, and the theoretical value with the measured value was compared. Further, this report describes the influence of **air** flow on the attenuation characteristics of a perforated- **plug** muffler. (author abst.)

13/7/5 (Item 2 from file: 94)

DIALOG(R) File 94:JICST-EPlus

(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

01046951 JICST ACCESSION NUMBER: 90A0356136 FILE SEGMENT: JICST-E

Special issue : control valve under special conditions. Fluid behavior in control valve interior.

OKUTSU RYOJI (1); INOUE FUMIHIRO (2); OTA EISUKE (2)

(1) Yamatake-Honeywell Co., Ltd.; (2) Waseda Univ., School of Science and Engineering

Keisoku Gijutsu(Instrumentation and Automation), 1990, VOL.18,NO.5, PAGE.35-40, FIG.7, REF.17

JOURNAL NUMBER: S0852AAH ISSN NO: 0385-9886

UNIVERSAL DECIMAL CLASSIFICATION: 621.64

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

ABSTRACT: In a control valve, **opening** changes at any time, and flow passage changes. However, flow characteristics under reduced pressure must smoothly change in the entire range between full **opening** and closing of a valve. It is also necessary to control the degree of energy conversion to vibration, and noise to a minimum. This paper reviews problems related to the internal flow of a valve. The following are explained.1) Internal flow patterns of gas flow control valves (conical **plug** and cage type valves).2) Internal flow state of water flow control valves (cavitation generation).

19/7/2 (Item 2 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci

(c) 2003 Inst for Sci Info. All rts. reserv.

04721547 Genuine Article#: UD382 Number of References: 4

Title: SUBMANDIBULAR TISSUE OBSTRUCTION OF TRACHEOSTOMY TUBE - REVERSAL WITH CHIN SLING

Author(s): MALLEPALLI J; NG A; ANDRESEN AFR; BRANDSTETTER RD

Corporate Source: NEW ROCHELLE HOSP,MED CTR,DEPT MED,16 GUION PL/NEW ROCHELLE//NY/10802; NEW ROCHELLE HOSP,MED CTR,DEPT MED/NEW ROCHELLE//NY/10802

Journal: HEART & LUNG, 1996, V25, N2 (MAR-APR), P158-160

ISSN: 0147-9563

Language: ENGLISH Document Type: ARTICLE

Abstract: We report on a 55-year-old woman with a tracheostomy who had unexplained respiratory failure from acute nocturnal shortness of breath. During the second day of admission, the patient noticed that her "second chin" folded over the tracheostomy on neck flexion,

occluding her artificial airway. The patient jury-rigged a strap to retain the submental tissue from occluding the **opening** of the tracheostomy **tube**. She was subsequently free from obstructive symptoms with good oxygen saturation even with neck flexion. She was consequently discharged with a presumptive diagnosis of acute upper airway obstruction. We believe that this unusual complication of the tracheostomy **tube**, may be more common than appreciated. Accordingly, patients with a tracheostomy should be evaluated through a full range of body and neck positions. Increases in body fat and tissue relaxation should be suspected as possible causes of occult occlusion of tracheostomy **tubes**. The application of a 'chin sling' can reverse this unusual upper airway obstruction until definitive correction by surgical **lipectomy** is performed.

File 98:General Sci Abs/Full-Text 1984-2003/Nov
File 9:Business & Industry(R) Jul/1994-2003/Dec 29
File 16:Gale Group PROMT(R) 1990-2003/Dec 30
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2003/Dec 25
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Dec 25
File 149:TGG Health&Wellness DB(SM) 1976-2003/Dec W1
File 636:Gale Group Newsletter DB(TM) 1987-2003/Dec 30
File 441:ESPICOM Pharm&Med DEVICE NEWS 2003/Dec W3
File 20:Dialog Global Reporter 1997-2003/Dec 30

| Set | Items | Description |
|-----|---------|---|
| S1 | 4684 | CANNULA? ? |
| S2 | 905130 | CATHETER? ? OR TUBE OR TUBES OR TUBING OR TUBUL? OR PIPE OR PIPES OR PIPET? OR CONDUIT? |
| S3 | 9998 | BOREHOLE? OR VENTHOLE? OR (BORE OR VENT) () (HOLE OR HOLES) |
| S4 | 2000455 | APERTURE? OR OPENING? OR BORE OR BORES |
| S5 | 492081 | PLUG? OR STOPPER? |
| S6 | 43058 | AIRFLOW? OR AIRSTREAM? OR AIR () (FLOW? OR STREAM? OR PASSAGE?) |
| S7 | 4372 | LIPOSUCTION? OR LIPECTOMY OR LIPOLYS?S(S)SUCTION? OR BODY () (CONTOUR? OR SCULPT?) (2N) SURGER??? |
| S8 | 434 | S1:S2 AND S7 |
| S9 | 4786 | S3:S4(S)S5 |
| S10 | 1181 | S3:S4(S)S6 |
| S11 | 449 | S1:S2(S)S9-S10 |
| S12 | 22 | S9(S)S10 |
| S13 | 5 | S11(S)S12 |
| S14 | 0 | S8 AND S13 |
| S15 | 1 | S13/2002:2003 |
| S16 | 4 | S13 NOT S15 |
| S17 | 2 | RD (unique items) |

17/3,AB,K/1 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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07986208 Supplier Number: 62139921

Treatment of otitis media with effusion based on politzerization with an automated device.

Arick, Daniel S.; Silman, Shlomo

Ear, Nose and Throat Journal, v79, n4, p290

April, 2000

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Refereed; Professional

Word Count: 2770

... is used for the nonsurgical management of otitis media with effusion and to treat eustachian **tube** dysfunction. The apparatus includes a compressor that provides a continuous flow of air at a predetermined pressure. A tapered nostril **plug** has a distal **opening** through which the continuous flow of air passes. The device can be set to deliver **airflow** in the range of approximately 1 to 4 L/min, which will provide an air...

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200382

File 347:JAPIO Oct 1976-2003/Aug(Updated 031202)

File 371:French Patents 1961-2002/BOPI 200209

| Set | Items | Description |
|-----|---------|---|
| S1 | 6589 | CANNULA?? |
| S2 | 1743481 | CATHETER? ? OR TUBE OR TUBES OR TUBING OR TUBUL? OR PIPE OR PIPES OR PIPET? OR CONDUIT? |
| S3 | 34170 | BOREHOLE? OR VENTHOLE? OR (BORE OR VENT) () (HOLE OR HOLES) |
| S4 | 1460993 | APERTURE? OR OPENING? OR BORE OR BORES |
| S5 | 294283 | PLUG? OR STOPPER? |
| S6 | 145926 | AIRFLOW? OR AIRSTREAM? OR AIR () (FLOW? OR STREAM? OR PASSAGE?) |
| S7 | 189 | LIPOSUCTION? OR LIPECTOMY OR LIPOLYS?S(S) SUCTION? OR BODY () (CONTOUR? OR SCULPT?) (2N) SURGER??? |
| S8 | 156737 | IC=A61F OR IC=A61B-017 |
| S9 | 264 | S1:S2 AND S3:S4 AND S5 AND S6 |
| S10 | 1 | S7 AND S9 |
| S11 | 3 | S8 AND S9 |
| S12 | 1 | S10 AND S11 [a duplicate] |
| S13 | 2 | S11 NOT S12 |
| S14 | 121 | S1:S2(S)S3:S4(S)S5(S)S6 |
| S15 | 496613 | IC=A61? |
| S16 | 0 | IC=A61 |
| S17 | 4 | S14 AND S15 |
| S18 | 3 | S17 NOT S10:S13 |
| S19 | 1 | S1:S2 AND S3:S4 AND S5 AND S7 |
| S20 | 0 | S19 NOT (S10:S13 OR S17) |
| S21 | 246 | S1:S2 AND S3:S4 AND S5 AND S8 |
| S22 | 9599 | S1:S2(S)S3:S4(S)S5 |
| S23 | 142 | S22 AND S8 |
| S24 | 1271483 | AIR |
| S25 | 11 | S24(S)S22 AND S8 |
| S26 | 10 | S25 NOT (S10:S13 OR S17) |

13/7,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

009942374 **Image available**

WPI Acc No: 1994-210087/199426

Perfusion cannula for artery insertion - includes hollow flexible trocar contg. guide wire and with pointed apertured head

Patent Assignee: GABBAY S (GABB-I); SHELHIGH INC (SHEL-N)

Inventor: GABBAY S

Number of Countries: 019 Number of Patents: 007

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|-------------|------|----------|-------------|------|----------|----------|
| EP 604803 | A2 | 19940706 | EP 93119918 | A | 19931210 | 199426 B |
| US 5330451 | A | 19940719 | US 92992116 | A | 19921217 | 199428 |
| CA 2110842 | A | 19940618 | CA 2110842 | A | 19931207 | 199432 |
| EP 604803 | A3 | 19940928 | EP 93119918 | A | 19931210 | 199533 |
| US 5599329 | A | 19970204 | US 92992116 | A | 19921217 | 199711 |
| | | | US 94200211 | A | 19940223 | |
| EP 604803 | B1 | 20020227 | EP 93119918 | A | 19931210 | 200215 |
| DE 69331626 | E | 20020404 | DE 631626 | A | 19931210 | 200230 |
| | | | EP 93119918 | A | 19931210 | |

Priority Applications (No Type Date): US 92992116 A 19921217; US 94200211 A

19940223

Cited Patents: No-SR.Pub; EP 194338; EP 286756; US 4287892; US 4569332; WO 9013322

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 604803 A2 E 16 A61M-001/00

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

US 5330451 A A61M-005/31

CA 2110842 A A61M-025/00

EP 604803 A3 A61M-001/00

US 5599329 A 13 A61M-025/00 Div ex application US 92992116

Div ex patent US 5330451

EP 604803 B1 E A61M-001/10

Designated States (Regional): DE ES FR GB IT

DE 69331626 E A61M-001/10 Based on patent EP 604803

Abstract (Basic): EP 604803 A

A perfusion **cannula** for artery insertion specifically includes a hollow flexible trocar (1) which contains a guide wire (52) and which has a pointed head (49,51) provided with holes (50) for blood and **air flow** past an end **plug**.

The **cannula** has a port for connection to a balloon pump and a port connectable to a blood pressure monitoring **tube**, and its main channel is connectable to a cardiopulmonary bypass.

USE - Open heart surgery.

Dwg.9/9

Abstract (Equivalent): US 5599329 A

A perfusion **cannula** for insertion into an artery, a main channel fluidly connected to an intra-aortic portion of the **cannula**, the main channel in fluid connection with an aortic perfusion line of a cardiopulmonary bypass, the portion having a proximal end adjacent the main channel and a distal end remote from the main channel, a first side port adapted for fluid connection to a balloon pump at a remote end and in fluid connection with the portion at a near end, a blood pressure port fluidly connected to a blood pressure monitoring **tube**, the **tube** being within the portion and extending to a pressure point upstream of the distal end, the **tube** being adapted for connection to a blood pressure monitoring device and a girdle surrounding a part of the artery, the **cannula** extending through the girdle into the artery.

Dwg.1/9

US 5330451 A

A perfusion **cannula** is for insertion into an artery with a main channel fluidly connected to an intra-aortic portion of the **cannula**. The main channel is in fluid connection with an aortic perfusion line of a cardiopulmonary bypass. The portion has a proximal end adjacent the main channel and a distal end remote from the main channel. A first side portion is adapted for fluid connection to a balloon pump at a remote end and is in fluid connection with the portion at a near end. A blood pressure port is fluidly connected to a blood pressure monitoring **tube**, the **tube** being within the portion and extending to a pressure point upstream of the distal end. The **tube** is adapted for connection to a blood pressure monitoring device.

Derwent Class: A96; P31; P32; P34

International Patent Class (Main): A61M-001/00; A61M-001/10; A61M-005/31; A61M-025/00

International Patent Class (Additional): A61B-017/34 ; A61F-002/06

13/7,K/2 (Item 2 from File: 350)
DIALOG(R) File 350:Derwent-WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
007768107 **Image available**
WPI Acc No: 1989-033219/198905

Male ureter implantable closure - consists of tubular valve body with
releasable plug fitted in outer end

Patent Assignee: BADER P (BADE-I)

Inventor: BADER P

Number of Countries: 033 Number of Patents: 008

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| EP 301292 | A | 19890201 | EP 88110928 | A | 19880708 | 198905 B |
| DE 3821631 | A | 19890209 | DE 3821631 | A | 19880627 | 198907 |
| WO 8900843 | A | 19890209 | WO 88DE456 | A | 19880722 | 198908 |
| AU 8820786 | A | 19890301 | | | | 198923 |
| DE 3821631 | C | 19891102 | | | | 198944 |
| US 4934999 | A | 19900619 | US 88225172 | A | 19880728 | 199027 |
| EP 301292 | B | 19911211 | | | | 199150 |
| DE 3866816 | G | 19920122 | | | | 199205 |

Priority Applications (No. Type Date): DE 3821631 A 19880627; DE 3724875 A
19870728

Cited Patents: DE 2431888; DE 504554; DE 602099; US 4183358; US 4555242

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|-----------|---|---|---|--|--|
| EP 301292 | A | G | 9 | | |
|-----------|---|---|---|--|--|

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

| | | | | | |
|------------|---|---|--|--|--|
| DE 3821631 | A | 7 | | | |
|------------|---|---|--|--|--|

| | | | | | |
|------------|---|---|--|--|--|
| WO 8900843 | A | G | | | |
|------------|---|---|--|--|--|

Designated States (National): AT AU BB BG BR CH DK FI GB HU JP KP KR LK
LU MC MG MW NL NO RO SD SE SU US

Designated States (Regional): OA

| | | | | | |
|-----------|---|--|--|--|--|
| EP 301292 | B | | | | |
|-----------|---|--|--|--|--|

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

Abstract (Basic): EP 301292 A

The closure consists of a **tubular** body which is inserted into the ureter. The **tubular** body consists of a main part (1), at least one intermediate part (2), and an end part (3), with each part having a longitudinal through hole (8) and forming a valve body (4, 5).

The end of the main part is fitted with a **plug** (9) and is enclosed in a double-membrane, flexible **tube** (10, 11). In addition, the main part has at least one radial hole (12) in its wall at the outer end.

USE/ADVANTAGE - For incontinence control, with reliable seal and no need for removal for urine passing.

1/5

Abstract (Equivalent): EP 301292 B

A seal for a male urethra, which is formed from an elongate body to be introduced into the urethra and secured therein, characterised in that the elongate body is formed from a base body (1) or from a base body (1) with at least one intermediate element (2) and an end element (3), and thus forms a one-section or multi-section cylindrical valve body (4 and 5), open at both sides, with a continuous longitudinal **bore** (8), wherein the valve body (4 and 5) has at least on its front end a detachably arranged seal (9) and wherein the valve body jacket is

encased partially by a double membrane tube 10,11), acted upon by pressure, in that the double membrane tube (10,11) is formed by an internal jacket membrane (10), which lies evenly against the valve body (4 and 5) and an external extensible membrane (11), and in that the base body (1) has in the front region at least one radial bore (12), and in that the internal jacket membrane has in the region of the radial bore (12) an air - passage opening (18). (10pp)

Abstract (Equivalent): US 4934999 A

The closure device for a male urethra, is formed by an elongated valve device to be inseted into the urethra and to be releasably fastened. The elongated object may be formed by a single basic body element, or by a basic body element combined with at least one intermediate element and an end element. The valve is open at both ends and includes a longitudinal through hole.

The valve body, at least on its front end, includes a removable closure plug . The valve body is partly enclosed by a double-membrane tube that can be pressurised and expanded to secure the device within the urethra. The basic body element of the valve body is provided with at least one radial hole to permit the introduction of fluid such as air into a space between an inner and outer membrane which comprise the double membrane tube or sleeve.

USE - For contraception

Derwent Class: P32; P34

International Patent Class (Additional): A61F-002/48 ; A61F-005/42 ;
A61F-006/02 ; A61M-029/02

18/7,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009452264 **Image available**

WPI Acc No: 1993-145789/199318

Device for preventing air escaping from percutaneous gastrostomy tube -
has plug through which guide wire passes in communication and has
cylindrical member with longitudinal bore

Patent Assignee: SANDOZ NUTRITION LTD (SANO); SANDOZ LTD (SANO)

Inventor: KIRBY D F; MICHELS L D; REUNING F K

Number of Countries: 017 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| EP 540465 | A1 | 19930505 | EP 92810800 | A | 19921020 | 199318 B |
| US 5259367 | A | 19931109 | US 91783051 | A | 19911025 | 199346 |

Priority Applications (No Type Date): US 91783051 A 19911025

Cited Patents: DE 9112338; EP 256546; EP 370720; US 4726374

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|-----------|----|---|---|-------------|--|
| EP 540465 | A1 | E | 5 | A61J-015/00 | |
|-----------|----|---|---|-------------|--|

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU NL
PT SE

| | | | |
|------------|---|---|-------------|
| US 5259367 | A | 4 | A61B-001/26 |
|------------|---|---|-------------|

Abstract (Basic): EP 540465 A

A cylindrical member is provided on an external end. The cylindrical member has a longitudinal bore for receiving the guide wire in slidable communication with the bore. This allows movement of the guide wire through the gastrostomy tube into the stomach while preventing stomach air flow out of the gastrostomy tube.

The cylindrical member has a tube-like portion adapted to receive a

stopper. The **stopper** is appendaged to the tube-like portion of the cylindrical member by a flexible connector.

USE - During placement of a feeding tube guide wire through a gastrostomy tube.

Dwg.1/3

Abstract (Equivalent): US 5259367 A

The method comprises providing a substantially cylindrical plug on an external end of the gastrostomy tube. The **plug has a longitudinal bore** through which the guide wire passes in slidable communication while substantially preventing stomach **air flow** out of the gastrostomy **tube**. It involves placing the guide wire through the **bore** and the gastrostomy **tube** into the stomach.

The cylindrical plug member has a tube-like portion adapted to receive a stopper.

USE - For the prevention of air escaping from a stomach during the placement of a guide wire through a percutaneous gastrostomy tube.

Dwg.1/3

Derwent Class: P31; P33

International Patent Class (Main): **A61B-001/26** ; A61J-015/00

18/7,K/2 (Item 2 from File: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

001513889

WPI Acc No: 1976-H6821X/197635

Respiratory system with ventilator - has diaphragm valve closed by atmospheric pressure to maintain expiration pressure at end of cycle

Patent Assignee: PHILIPS ELTRN LTD (PHIG)

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|------|----------|
| GB 1447091 | A | 19760825 | | | | 197635 B |

Priority Applications (No Type Date): GB 7343090 A 19730913

Abstract (Basic): GB 1447091 A

Respiratory system for maintaining a positive pressure of expired gas at the end of each respirator cycle and for offering minimal resistance to **airflow** from the lungs until the end pressure is reached comprises a ventilator and a pressur controlled valve. The valve has a chamber divided into two compartments (1, 2) by a diaphragm (3), one chamber (1) having an inlet **aperture** (4) connected to the expiratory **tube** of the ventilator and an outlet **aperture** (5). A flat **stopper** (6) passes through and is connected to, the diaphragm (3) and the second chamber is subjected to a pressure which is at least atmospheric, so that the **stopper** normally seals the outlet **aperture** (5), but opens it when the pressure due to the expiratory gas on the diaphragm in the first compartment (1) exceeds the pressure applied to the side of the diaphragm in the second compartment

Derwent Class: P33; Q66

International Patent Class (Additional): **A61H-031/00** ; F16K-017/02

18/7,K/3 (Item 1 from file: 347)

DIALOG(R)File 347:JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

05834949

MANUFACTURE OF BLOOD SAMPLING TUBE CONTAINING ANTICOAGULANT

PUB. NO.: 10-118049 [JP 10118049 A]

PUBLISHED: May 12, 1998 (19980512)
INVENTOR(s): SUZUKI MASARU
MURAKAMI KAZUNORI
IKEDA JUNJI
APPLICANT(s): NISSHO CORP [470126] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 08-276193 [JP 96276193]
FILED: October 18, 1996 (19961018)

ABSTRACT

PROBLEM TO BE SOLVED: To keep activity of heparin for a long period of time by a method wherein a water solution containing heparin and a polypeptide fraction derived from collagen with a specified value of average mol.wt. is applied by spraying on the inner wall of a blood sampling tube and it is dried with air flow at a specified temperature

SOLUTION: In a blood sampling tube consisting of a bottomed tube wherein one end is opened and another end is enclosed and a **plug** body for sealing hermetically the opening of the bottomed tube, a water solution containing heparin and a polypeptide fraction derived from collagen with an average mol.wt. of 10,000-100,000 is applied by spraying on the inner wall of a blood sampling tube, and it is dried with **air flow** at 30-80 deg.C to prepare a blood sampling **tube** containing an anticoagulant. Here, heparin is sodium heparin or lithium heparin. In addition, flow rate of the **air flow** is made to be 0.2-2.5m/hr. It is possible thereby to stably keep heparin for a long time and to shorten manufacturing time and to reduce cost and furthermore, to obtain good solubility with blood and an accurate inspection result.

INTL CLASS: A61B-005/14

26/26, TI/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

015339829

WPI Acc No: 2003-400767/200338

Apparatus for diluting bone cement and introducing the same into medullary canal

26/26, TI/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv..

013907549

WPI Acc No: 2001-391762/200142

Needle assembly for medical purposes, comprises needle, elongate blunting device, blunt holder, shifter that can be actuated to move blunt holder relative to needle, and flash chamber

26/26, TI/3 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013304377

WPI Acc No: 2000-476312/200042

Multi-function medical health care bag for male and female sex organ

26/26, TI/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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012794837

WPI Acc No: 1999-601067/199951

Implanting device for small diameter capillary graft

26/26, TI/6 (Item 6 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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012102708

WPI Acc No: 1998-519619/199844

Female urinary plug for patients suffering from incontinence - has infection protection cap which prevents inflation of the soft balloon, and whose distal end has collet-like shape and is provided with expandable petal-like tongues

26/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

010282454

WPI Acc No: 1995-183712/199524

Foot prosthesis - has compressed air chambers with bushes and nipples, with three rear chamber sections linked by apertures

26/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

003954008

WPI Acc No: 1984-099552/198416

Plug for dental surgery - has casing which is impregnated with medicinal substances

26/7, K/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013084450 **Image available**

WPI Acc No: 2000-256322/200022

Transportable apparatus for the treatment of Meniere's disease and other ear pressure conditions using electronically controlled pressure to protect delicate parts from damage and dirt which allows self-administration

Patent Assignee: PASCAL MEDICAL AB (PASC-N)*

Inventor: ENGVALL D; NILSSON A

Number of Countries: 047 Number of Patents: 004

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|---------------|------|----------|---------------|------|----------|----------|
| WO 200010484 | A2 | 20000302 | WO 99SE1354 | A | 19990809 | 200022 B |
| AU 9956634 | A | 20000314 | AU 9956634 | A | 19990809 | 200031 |
| EP 1107713 | A2 | 20010620 | EP 99943563 | A | 19990809 | 200135 |
| | | | WO 99SE1354 | A | 19990809 | |
| JP 2002523135 | W | 20020730 | WO 99SE1354 | A | 19990809 | 200264 |
| | | | JP 2000565809 | A | 19990809 | |

Priority Applications (No Type Date): SE 982771 A 19980819

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200010484 A2 E 15 A61F-000/00

Designated States (National): AU BG BR CA CN CZ EE HR HU IL JP KR KZ LT
LV MX NO NZ PL RO RU SG SI SK TR UA US ZA

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE

AU 9956634 A A61F-000/00 Based on patent WO 200010484
EP 1107713 A2 E A61F-005/00 Based on patent WO 200010484
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LT LU LV MC NL PT RO SE SI
JP 2002523135 W 13 A61F-011/00 Based on patent WO 200010484
Abstract (Basic): WO 200010484 A2

NOVELTY - An electronically controlled pressure generating unit is housed in a casing. Pressurized **air** from the unit is delivered through a plastic **tube** (11) on the end of which is an ear **plug** (13) which can be inserted into a patient's ear. The flexible **tube** extends through a circular **opening** to be stored in an elliptical circumferential groove.

DETAILED DESCRIPTION - The pressure generating unit is a diaphragm pump driven by an electric motor which is controlled by a microprocessor which controls the generation of pressure pulses.

USE - Treatment of Meniere's disease and other conditions affecting the internal pressure of the ear.

ADVANTAGE - Portable device suitable for self-administration of treatment with protection against damage to sensitive parts and to the infiltration of dirt.

DESCRIPTION OF DRAWING(S) - The figure shows a side view of the invention with the casing cover open.

flexible tube (11)

ear plug (13)

pp; 15 DwgNo 1/3

Derwent Class: P32; S05

International Patent Class (Main): A61F-000/00 ; A61F-005/00 ;

A61F-011/00

26/7,K/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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003751315

WPI Acc No: 1983-747521/198335

Inflatable pad to reduce haemorrhage after childbirth - has inflatable envelope attached to plastics plug with air inlet and outlet

Patent Assignee: FOURNIER A. (FOUR-I)

Inventor: FOURNIER A.

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|------|----------|
| CA 1150121 | A | 19830719 | | | | 198335 B |

Priority Applications (No Type Date): CA 364844 A 19801117

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|----------|--------------|
| CA 1150121 | A | 4 | | |

Abstract (Basic): CA 1150121 A

The inflatable pad is used to arrest haemorrhage in the uterus and vagina of a woman after childbirth. It has an inflatable envelope attached to a plastics **plug** with two flow passages. The first is connected to a flexible rubber **tube** for **air** under pressure to inflate the envelope, and which has an **air** pressure gauge and one-way filling valve. The second passage has a threaded **opening** to vent the envelope and release pressure from the uterus.

The envelope surrounds and is fixed to the plastics plug.

0/2

Derwent Class: P32
International Patent Class (Additional): A61F-005/46 ; A61F-013/20

26/7,K/10 (Item 1 from file: 347)
DIALOG(R) File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.
03087967 **Image available**
AUXILIARY BLADDER DEVICE
PUB. NO.: 02-063467 [JP 2063467 A]
PUBLISHED: March 02, 1990 (19900302)
INVENTOR(s): UMEMURA YOSHIHIRO
NISHIMURA SEIICHIRO
APPLICANT(s): UNITIKA LTD [000450] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 63-217259 [JP 88217259]
FILED: August 30, 1988 (19880830)

ABSTRACT

PURPOSE: To enable a bladder to repeat expansion and contraction smoothly at a specified period by a method wherein a communication tube is extended along the outside of an outer tube, and is opened in a level higher than that of the upper top part of a siphon tube.

CONSTITUTION: A communication tube 16 having the one end communicated with the lower part of an inner tube 11 is extended along the outside of an outer tube 12, and the tip thereof is opened in a level higher than that of the top part of a siphon 10. The one end of the communication tube 16 is coupled with the inner tube 11 in a position below the lower end part of the outer tube 12 in a pressure regulating chamber 3. A tube 4 intercoupling an urine introduction catheter 2 and a lower coupling port 3h of the pressure regulating chamber 3 and an urine storage chamber 5 in which urine flows through an upper opening part are formed. The urine storage chamber 5 is coupled to the pressure regulating chamber 3 through the inner tube 11 of the siphon tube 10. A bacteria flowing-upstream blocking device 3, a ventilation port 6, a bacteria removing filter 7 situated in the ventilation port 6, a drainage port 8 formed in the lower part of the urine storage chamber 5, and the stopper of the drainage port 8 are provided. The pressure regulating chamber 3 is provided with a ventilation port 14 through which air is discharged and supplied due to filling and drainage of urine, and a vent resistant filter 15 inserted in the ventilation port 14.

INTL CLASS: A61M-001/00; A61F-005/44

File 348:EUROPEAN PATENTS 1978-2003/Dec W02

File 349:PCT FULLTEXT 1979-2002/UB=20031225,UT=20031218

| Set | Items | Description |
|-----|--------|--|
| S1 | 14107 | CANNULA? ? |
| S2 | 539039 | CATHETER? ? OR TUBE OR TUBES OR TUBING OR TUBUL? OR PIPE OR PIPES OR PIPET? OR CONDUIT? |
| S3 | 12155 | BOREHOLE? OR VENTHOLE? OR (BORE OR VENT) () (HOLE OR HOLES) |
| S4 | 496426 | APERTURE? OR OPENING? OR BORE OR BORES |
| S5 | 133393 | PLUG? OR STOPPER? |
| S6 | 63740 | AIRFLOW? OR AIRSTREAM? OR AIR() (FLOW? OR STREAM? OR PASSAGE?) |
| S7 | 331 | LIPOSUCTION? OR LIPECTOMY OR LIPOLYS?S(S) SUCTION? OR BODY(-) (CONTOUR? OR SCULPT?) (2N) SURGER??? |
| S8 | 82266 | IC=A61B OR IC=A61F |
| S9 | 253 | S1:S2(S)S3:S4(S)S5(S)S6 |
| S10 | 0 | S7(S)S9 |
| S11 | 15 | S8 AND S9 |
| S12 | 1 | S1(S)S3(S)S4(S) |
| S13 | 0 | S12 NOT S11 |
| S14 | 262749 | HOLE OR HOLES |
| S15 | 436460 | AIR |
| S16 | 2095 | S1:S2(S) (S3:S4 OR S14) (S)S5(S) (S15 OR S6) |
| S17 | 2 | S7 AND S16 |
| S18 | 1 | S17 NOT S11 |
| S19 | 1 | S7 AND S9 |
| S20 | 0 | S19 NOT S11 |

11/6/4 (Item 4 from file: 348)

00246801

Device for driving tools in orthopedic surgery.

11/6/8 (Item 4 from file: 349)

00981676 **Image available**

INFLATABLE ARTICLES WITH SELF-CONTAINED INFLATION MECHANISM

11/6/11 (Item 7 from file: 349)

00809187 **Image available**

SLANT FABRIC SPIROMETER DESIGN

11/3,AB,K/1 (Item 1 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01548907

Blood gas syringe having improved blood barrier

Spritze zur Gewinnung von Gasen im Blut, mit verbesserter Blutsperre

Seringue pour obtenir du gaz du sang ayant une barriere pour le sang
amlioree

PATENT ASSIGNEE:

Becton, Dickinson and Company, (2594835), 1 Becton Drive, Franklin Lakes,
New Jersey 07417-1880, (US), (Applicant designated States: all)

INVENTOR:

Cohen, Richmond R., 2650 Waldman Drive, Apt.5, Williamsport, Pennsylvania
17701, (US)

Keusch, Preston, 3 Belfast Avenue, Hazlet, New Jersey 07730, (US)

LEGAL REPRESENTATIVE:

von Kreisler, Alek, Dipl.-Chem. et al (12437), Patentanwalte, von
Kreisler-Selting-Werner, Bahnhofsvorplatz 1 (Deichmannhaus), 50667 Koln

, (DE)
PATENT (CC, No, Kind, Date): EP 1287784 A1 030305 (Basic)
APPLICATION (CC, No, Date): EP 2002018947 020826;
PRIORITY (CC, No, Date): US 942401 010830
DESIGNATED STATES: DE; FR; GB; IT
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: A61B-005/15 ; A61L-033/00; A61L-031/14
ABSTRACT EP 1287784 A1

A blood gas syringe includes a porous plastic **plug** having a crosslinked hydrogel affixed to a wall of a passageway of the **plug**. When a blood sample is taken with the syringe, the incoming sample **forces air in the system out through the passageway of the plug** until the sample contacts the hydrogel, causing the passageway to seal shut.

ABSTRACT WORD COUNT: 60

NOTE: Figure number on first page: NONE

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|----------------|----------|--------|------------|
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| | | | |
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| CLAIMS A | (English) | 200310 | 233 |
|----------|-----------|--------|-----|

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| SPEC A | (English) | 200310 | 2035 |
|--------|-----------|--------|------|

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| Total word count - document A | 2268 |
|-------------------------------|------|

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| Total word count - document B | 0 |
|-------------------------------|---|

| | |
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| Total word count - documents A + B | 2268 |
|------------------------------------|------|

...SPECIFICATION irradiation, the plugs were dried at 70(degree)C overnight to remove all moisture.

The **plug** -plunger rods were then manually assembled into complete prototype 3-mL syringes. To test for...

...was sealed off with adhesive (Loctite 4061). Also, a pressure gauge was hooked into the **tubing** carrying the air.. **Opening** a valve activated the flow of air. The valve was adjusted until the pressure on...

...psi. The syringe and T-adaptor-assembly were then immersed in a water bath. The **air flowed** into the tip of the syringe, through the treated porous **plug**, and out the distal end of the syringe, producing visible bubbling in the bath. The...

...Brand Critical Care ~~Blood~~ Collection System, 3-mL Preset(TM)). This demonstrated that the prototype **plugs** were still permeable to gas after treatment...

11/3,AB,K/2 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00584854

DISPOSABLE ELECTROCAUTERY/CUTTING INSTRUMENT WITH SMOKE EVACUATION

EINWEGINSTRUMENT ZUM ELEKTRISCHEN BRENNEN ODER SCHNEIDEN MIT RAUCHABZUG

BISTOURI/ELECTROCAUTERE JETABLE A EVACUATION DE FUMEE

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PATENT (CC, No, Kind, Date): EP 588986 A1 940330 (Basic)

EP 588986 B1 010919

WO 9222258 921223

APPLICATION (CC, No, Date): EP 92918584 920611; WO 92US4837 920611
PRIORITY (CC, No, Date): US 713070 910611
DESIGNATED STATES: BE; DE; ES; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: **A61B-018/08 ; A61B-018/12**
NOTE: No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|------------------------------------|-----------|--------|------------|
| CLAIMS B | (English) | 200138 | 510 |
| CLAIMS B | (German) | 200138 | 511 |
| CLAIMS B | (French) | 200138 | 551 |
| SPEC B | (English) | 200138 | 5603 |
| Total word count - document A | | | 0 |
| Total word count - document B | | | 7175 |
| Total word count - documents A + B | | | 7175 |

...SPECIFICATION the surgeon secures the provided holster 76 and a length of joined electrical cable and **tubing** 82 to the surgical drape in his or her customary fashion. The electrical connector 26 and joined cable and **tubing** 82 are then passed off the surgical field to the circulating nurse, who connects the standard end of the suction **tubing** 30 to a standard suction canister (not shown) and turns the vacuum on. An adequate length of electrical cable 24 is separated from the joined **tubing** and cable 82, and the electrical connector 26 which terminates the cable 24 is **plugged** into a radio frequency power generator, also commonly called a Bovie unit (not shown). The...

...blade tip 48, the smoke is drawn continuously and unobtrusively into the annular suction intake **aperture** 36 at high velocity, allowing no smoke to escape and disperse above the field. No...how the instrument 22 itself is rotated. The radiused leading edge 38 of the intake **aperture** 36, which is rounded and smooth, effectively decreases **airflow** turbulence at the edge. This allows a greater **airflow** velocity and more efficient smoke evacuation. The smooth leading edge 38 also presents a non...

11/3,AB,K/3 (Item 3 From file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00411136

SELF-SEALING FLUID CONDUIT AND COLLECTION DEVICE.

SELBSTDICHTENDE FLUSSIGKEITSROHRE UND GERATE ZUR SAMMLUNG DIESER FLUSSIGKEIT.

DISPOSITIF D'ACHEMINEMENT ET DE COLLECTE D'UN FLUIDE A FERMETURE HERMETIQUE.

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PATENT (CC, No, Kind, Date): EP 435908 A1 910710 (Basic)
EP 435908 B1 950329
WO 9002516 900322

APPLICATION (CC, No, Date): EP 89910489 890911; WO 89US3956 890911

PRIORITY (CC, No, Date): US 243982 880913
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: **A61B-005/14** ; B01L-003/14
NOTE: No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|----------------|-----------|--------|------------|
| CLAIMS B | (English) | EPAB95 | 576 |
| CLAIMS B | (German) | EPAB95 | 527 |
| CLAIMS B | (French) | EPAB95 | 653 |
| SPEC B | (English) | EPAB95 | 5836 |

Total word count - document A 0
Total word count - document B 7592
Total word count - documents A + B 7592

INTERNATIONAL PATENT CLASS: **A61B-005/14** ...:

...SPECIFICATION and the plug thereby blocking water flow from the blood into the plug.

The collection **tube** may be used in a specimen transfer mode without centrifugal separation if a vent channel...

...collection device. A simple integrated device would add a cap at the end of the **tube** and closely adjacent to the sealed self-sealing **plug**. The **tube** will hold the aqueous specimen in the **tube** by air pressure when the specimen is collected, the fluid contacts the vent channel, and the **plug** thereupon sealed. When it is desired to transfer an unseparated specimen, such as is the case with micro-specimens for blood gas analysis, a hypodermic needle, or a small **bore** molded **cannula** with sharper point is pressed through the **plug** to permit **air flow** to proceed through the sealed **plug**, and allow transfer of the collected fluid out of the collection **tube**, and into the receptacle. Preferably, this needle is incorporated into a cap which fits over the **plugged** end of the **tube**. This is the simplest way to dispense collected specimens, but not the most precise...

11/3,AB,K/5 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01059264

DEVICE FOR AND METHOD OF REMOVING DELETERIOUS BODY TISSUE FROM A SITE
WITHIN A PATIENT

DISPOSITIF ET PROCEDE D'EXTRACTION D'UN TISSU ORGANIQUE DELETERE SITUE A
L'INTERIEUR DU CORPS D'UN PATIENT

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Patent Applicant/Inventor:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200388859 A1 20031030 (WO 0388859)

Application: WO 2003US5888 20030225 (PCT/WO US0305888)

Priority Application: US 2002124780 20020416

Parent Application/Grant:

Related by Continuation to: US 2002124780 20020416 (CON)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI
SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 4797

English Abstract

A device, system, and method provides for removing deleterious tissue from healthy body tissue at a site inside a patient. The device includes a steerable electrosurgery device (88) having an electrode (98) to cut a core through tissue, including tissue surrounding a perimeter of the deleterious tissue, and a lumen (in 98) for aspirating the cored tissue from the patient. The electrode may form a closed loop, and may be the active electrode of an electrosurgery system. Further, the electrode may have a narrow profile. In addition, the electrode may be arranged to coagulate the cut tissue. The system includes the device and a seal to limit air leaks and bleeding from the removal of cored tissue.

Main International Patent Class: **A61B-018/18**

Fulltext Availability: Detailed Description

Detailed Description

... is the peripheral surface of a **plug** that fills the entire cross-section of the **air passageway**, including the cored hole **opening** 112. The **plug** covers and seals the cored hole **opening** 112.

[471 As can thus be seen from the foregoing, the present invention provides...

11/3,AB,K/7 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00992056

CONDUITS HAVING DISTAL CAGE STRUCTURE FOR MAINTAINING COLLATERAL CHANNELS IN TISSUE AND RELATED METHODS

CONDUITS A STRUCTURE DE CAGE DISTALE POUR LE MAINTIEN DE CANAUX COLLATERAUX DANS DES TISSUS ET PROCEDES ASSOCIES

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2002US28237 20020904 (PCT/WO US0228237)
Priority Application: US 2001317338 20010904; US 2001947144 20010904; US
2001334642 20011129; US 2002367436 20020320; US 2002374022 20020419; US
2002387163 20020607

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CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 22563

English Abstract

Devices and related methods are directed to altering gaseous flow within
a lung to improve the expiration cycle of an individual having Chronic
Obstructive Pulmonary Disease. More particularly, conduits (200) maintain
collateral openings or channels through the airway wall so that air is
able to pass directly out of the lung tissue to facilitate both the
exchange of oxygen ultimately into the blood and to decompress
hyper-inflated lungs. The conduits include a center section (310) with a
passageway extending through the center section. The conduits further
include a distal cage (216) structure which has a passageway and at least
one opening in fluid communication with the center section passageway.
The medical kits disclosed herein are also directed to maintain
collateral openings through airway walls.

Main International Patent Class: **A61B-018/18**

Fulltext Availability: Claims

Claim

... by reference in its entirety.

FIELD OF THE INVENTION

[0002] The invention is directed to **conduits** for altering gaseous flow

within a lung to improve the expiration cycle of an individual, particularly individuals having Chronic Obstructive Pulmonary Disease. The **conduits** maintain collateral **openings** or channels through the airway wall so that air is able to pass directly out...
...exchange of oxygen ultimately into the blood and/or to decompress hyper-inflated lungs. The **conduits** generally include a center section having a passageway for air to flow through and a...
...section passageway. The invention is also directed to methods and medical kits for maintaining collateral **openings** through ...natural respiratory airway, hereafter referred to as a natural airway or airway, consisting of branching **tubes** which become narrower, shorter, and more numerous as they penetrate deeper into the lung. Specifically...at a satisfactory rate. [00101 One further aspect of alveolar wall destruction is that the **airflow** between neighboring air sacs, known as collateral ventilation or collateral **air flow**, is markedly increased as when compared to a healthy lung. While alveolar wall destruction ...in the small, airways. Excessive amounts of mucus are found in the airways and semisolid **plugs** of this mucus may occlude some ...includes bronchodilator drugs, and lung volume reduction surgery. The bronchodilator drugs relax and widen the **air passages** thereby reducing the residual volume and increasing gas flow permitting more oxygen to enter the...the respiratory muscles. However, lung volume reduction surgery is an extremely traumatic procedure which involves **opening** the chest and thoracic cavity to remove a portion of the lung. As such, the...of the lung, or the @ entire lung is emphysematous. The production and maintenance of collateral **openings** through an airway wall allows air to pass directly out of the lung tissue responsible for gas exchange. These collateral **openings** serve to decompress hyper inflated lungs and/or facilitate an exchange of oxygen into the...to devices and methods for altering gaseous flow in a lung. The invention includes a **conduit** for maintaining the patency of an **opening** in tissue. In one variation of the present invention, a **conduit** comprises a center section having a first end, a second end and a center-section passageway extending from the first end to the second end. The **conduit** further comprises a plurality of first extension members extending from the first end. The first extension members are outwardly deflectable about the first end of the center section. The **conduit** further comprises a cage structure adjacent to the 5 second end of the center section. The cage structure has at least one **opening** and a cage passageway in fluid communication with the center-section passageway. [00181 The cage...
...may be formed of a plurality of cage segments or members. Also, portions of the **conduit** may be coaxially surrounded with a tissue barrier or membrane to prevent tissue growth into the passageway of the **conduit**. [00191 The **conduit** may have an undeployed state for facilitating delivery of the **conduit** to a target site and a deployed state, different than the undeployed state, for maintaining...
...of a channel in an airway wall. In this variation of the present invention the **conduit** comprises a radially expandable frame having a proximal section, a center section and a distal...second end. The distal section of the frame comprises a cage having at least one **opening** and a cage passage which is in fluid communication with the center-section passage. When the **conduit** is in the undeployed state the proximal section, the center section, and the distal section have a reduced profile. When the **conduit** is in the deployed state, the plurality of extension members deflect outward forming a non...and the cage. has an

expanded profile greater than that of the cage when the conduit is in the undeployed state. Additionally, a biocompatible coating may coaxially surround at least a portion of the frame. [00201 In another variation of the present invention a **conduit** comprises a center section having a proximal end, a distal end, and a passage within the center section extending, between the ends. The **conduit** further comprises a plurality of extension members with at least one proximal extension member and...of the ends of the center section to retain tissue between the extension members. The **conduit** further includes 6

a cage adjacent to the distal end of the center section. The cage has at least one **opening** and a passage in fluid communication with the center section passage. [00211 A ...from one open end to a second open end. The medical device may be a **conduit** as recited herein. Also, the deploying step may be carried out using a balloon **catheter** having an inflatable member. The method may also comprise delivering a bioactive substance to the tissue. The bioactive substance may be a coating on the **conduit**. Additionally, the substance may be delivered by a delivery **catheter** prior to deploying the **conduit**. [00221 A kit comprises a **conduit** as -recited herein. The kit additionally comprises a deployment **catheter** to deploy the **conduit**. The deployment **catheter** may be a balloon **catheter**. The kit may further comprise an instrument for creating holes in an airway wall. The...

...blood-gas interface. [00241 Figures 1D and 1E illustrate a schematic of a lung having **conduits** deployed in channels to alter **airflow** through the lung. [00251 Figure 2A illustrates a planar view of a surface of a variation of a **conduit**. [00261 Figure 2B illustrates a perspective view of the **conduit** of Figure 2A in an undeployed state. [0027] Figure 2C illustrates a perspective view of the **conduit** of Figure 2A in a deployed state. [00281 Figure 3 illustrates an unexpanded planar view of a surface of a variation of a **conduit** in which cage members extend perpendicularly to distal extension members prior to deployment of the device. [00291 Figures 4 and 5 illustrate planar views of variations of **conduits**. [0030] Figure 6 illustrates a planar view of a variation of a **conduit** wherein the proximal and distal extension members are in an alternating pattern. 7

[00311 Figure 7A illustrates a planar view of a variation of a **conduit** of the present invention wherein the cage is attached to distal extension members. [0032] Figure 7B illustrates a perspective view of the **conduit** of Figure 7A in a deployed state. [00331 Figure 8A illustrates a planar view of a variation of a **conduit** wherein the distal extension member is non-planar. [0034] Figure 8B illustrates a side view of the **conduit** of Figure 8A. [0035] Figure 8C illustrates a perspective view of the **conduit** of Figure 8B. [00361 Figure 9A illustrates a planar view of a variation of a **conduit**. [00371 Figure 9B illustrates a perspective view of the **conduit** of Figure 9A in an undeployed state. [00381 Figure 9C illustrates a perspective view of the **conduit** of Figure 9A in a deployed state. [0039] Figure 9D illustrates a perspective view of another **conduit** in a deployed state. [00401 Figure 9E illustrates a side view of a **conduit** in an un-deployed state. [00411 Figure 9F illustrates a side view of the **conduit** of Figure 9E shown in a deployed state. [00421 Figure 9G illustrates a front view of the **conduit** shown in Figure 9F. [00431 Figure 9H is a cylindrical projection of the undeployed **conduit** shown in Figure 9E. [0044] Figure 9I illustrates a side view of another **conduit** in an undeployed state. [0045] Figure 9J illustrates a side view of the **conduit** of Figure 9I in a deployed state. [0046] Figure 9K is a cylindrical projection of the undeployed

conduit shown in Figure 9I. [00471 Figures 9L-9P illustrate variations of **conduits**. [00481 Figures IOA- 10D illustrate a variation of the **conduit** having length-increasing portions on the cage members of the **conduit**. [00491 Figure I 1 illustrates a cross sectional view of a variation of a **conduit** having an inner covering. [00501 Figures 12A-12B illustrate views of a **conduit** having a filler material between **openings** in ribs. [00511 Figures 13A-13C illustrate views of a **conduit** having reduced thickness or weakened sections. [00521 Figure 14A illustrates a variation of a **conduit** having a tissue barrier. [00531 Figure 14B illustrates a side view of another **conduit** having a tissue barrier. 8

[00541 Figure 14C is a front view of the **conduit** shown in Figure 14B. [00551 Figure 14D illustrates a **conduit** positioned in a channel created in a tissue wall. [00561 Figure 14E is a cross sectional view of the **conduit** shown in Figure 14B taken along line 14E-14E. [00571 Figures 14F-14K illustrate additional variations of **conduits**. [00581 Figure 15A illustrates a perspective view of another **conduit**. [00591 Figure 15B illustrates a side view of the **conduit** of Figure 15A. [00601 Figure 15C-15D illustrate planar views of a surface of the **conduit** shown in Figure 15A. [00611 Figure 15E and 15F illustrate a side view of the **conduit** of Figure 15A prior to deployment of the proximal extension members and cage members. [00621 Figure 16A illustrates a planar view of a surface of a variation of a **conduit**. [00631 Figure 16B illustrates a perspective view of the **conduit** of Figure 16A in a deployed state. [00641 Figure 16C illustrates a planar view of another variation of a **conduit**. [00651 Figure 16D illustrates a side view of the **conduit** shown in Figure 16C in a deployed configuration. [00661 Figure 16E illustrates a side view of another **conduit** having a tissue barrier and a visualization marker. [00671 Figure 17A illustrates a side view of another **conduit**. [00681 Figure 17B illustrates a side view of the **conduit** shown in Figure 17A after the **conduit** is deployed. [00691 Figure 17C illustrates a front view of the **conduit** shown in Figure 17B. [00701 Figures 17D-17E illustrate a variation of a **conduit** where the **conduit** comprises a wire or mesh pattern. [00711 Figure 17F illustrates another variation of a **conduit**. [00721 Figures 18A- I 8F illustrate a method for deployment of a **conduit**. [00731 Figures 19A- I 9C illustrate the deployment of a **conduit**. [00741 Figures 20A-20B illustrate the deployment of a **conduit**. [00751 Figures 21A-21C illustrate the deployment of a **conduit** using a balloon **catheter**. [00761 Figure 21D illustrates another variation of a balloon **catheter** which may be used to deploy, a **conduit**. 9

[00771 Figures 22A-22D illustrate another variation of a deployment **catheter** which may be used to deploy **conduits**. [00781 Figures 23A-23C illustrate the use of a guide member in assisting the placement of a **conduit**. [00791 Figure 24 illustrates a variation of a **conduit** having a one-way valve. [00801 Figures 25A-25I illustrate a method for deploying a **conduit** at an angle.

DETAILED DESCRIPTION OF THE INVENTION

[00811 Described herein are devices (and methods) for improving the gas exchange in the lung. In particular, a **conduit** is described which serves to maintain collateral **openings** or channels through an airway wall so that air is able to pass directly out...

...lungs. [00821 By "channel" it is meant to include, but not be limited to, any **opening**, hole, slit, channel or passage created in the airway ...have well defined boundaries such as, for example, parenchymal tissue. [00831 As stated above, the **conduits** described herein may improve

airflow through an airway in the lung. Simplified illustrations of various states of a natural airway...IC may be found in the same lung. [0084] Figures 1D and 1E schematically illustrate **airflow** in a lung 118 when **conduits** 200 are placed in collateral channels 112. As shown, collateral channels 112 (located in an...
...constricted airways 108 which may ordinarily prevent air from exiting the lung tissue 116. The **conduits** shown in Figures 1D and ...224 respectively which serve to separate parenchymal tissue, prevent occlusion of the passageway, and improve **air - flow** through the **conduit** /collateral channel. The cage or basket structures may vary widely in shape and construction as...00871 Figure 2A illustrates a planar view of a surface of a variation of a **conduit** 200. For purposes of illustration, the **conduit** 200 depicted in Figure 2A is shown as though the **conduit** 200 were longitudinally cut ...show the device in pre-deployed and deployed positions as discussed below. As illustrated, the **conduit** 200 comprises a center section 202, having proximal 204 and distal 206 ends. Although not...
...center section 202 will define a passage which extends between its ends 204, 206. The **conduit** 200 also comprises at least one proximal extension member 208 at a proximal 204 end...
...extension member 210 at a distal 206 end of the center section 202. Although the **conduit** 200 ...and distal extension members 208, 210, the invention is not limited as such. [0088] The **conduits** 200 of the present invention are not limited to any particular number of extension members...
...proximal extension members may differ from the number of distal extension members for a particular **conduit** . The extension members will be selected such that they contain a fixed end that is...center section. When the extension
I 1
members rotate about the center section of the **conduit** , they are able to retain tissue therebetween thus preventing significant migration of the **conduit** . Accordingly, one function of the extension members is that they prevent migration of the inventive **conduit** from its deployed position within a collateral channel. The extension members may have **openings** to permit tissue ingrowth for improved retention within the lung. The **opening** may be used to anchor a tissue barrier that is located over a portion of the **conduit** . Alternatively, the extension members may be solid. [0089] Figures 2A-2C illustrate a variation of a **conduit** 200 as having a cage 212. The cage 212 will define a passage (not shown...
...in fluid communication with a passage of the center section (not shown). This pen-nits **airflow** through the **conduit** 200 in accordance with one of the benefits of the invention disclosed herein. In this variation, the cage 212 comprises a plurality of cage members 214. In use, the **conduit** 200 may be deployed with the distal 206 or cage side towards the parenchymal tissue or in the airway. [0090] Variations of the invention may include **conduits** 200 having expandable cages 212. Expansion of the cage 212 in the parenchymal tissue permits an increased surface area within the parenchyma to allow for improved **air flow** . [0091] The presence of the cage may prevent flaps or portions of the parenchymal tissue...glass-shaped, hemi-toroidal, or other.) [0093] Additionally, in some designs, one portion of the **conduit** may be radially expandable and another portion may not be radially expandable. For example, the center section may be designed as a hollow **tubular** member that is unexpandable. An expandable 12

cage may be joined to the center section. Accordingly, a **conduit** may have various sections some of which are expandable and others which are not expandable. [0094] The first diameter of the cage may be selected such that the **conduit** is small enough to fit within ...have passageways which have lengths greater than 1 mm. [0096] The cage of the inventive **conduit** may have an axial length between 2 mm and 20 mm. The axial length will be measured along an axis of the passage of the **conduit**. [0097] Cage 212 may be formed from an ordinary wire mesh that functions to keep parenchymal tissue separated to increase **airflow** through the **conduit** 200 passage. However, in the variation depicted in Figure 2A, the cage 212 comprises a...214 (e.g., adjacent cage members). However, it is contemplated that variations of the inventive **conduit** may be designed without such control segments. One of the functions of the control segments...

11/3,AB,K/9 (Item 5 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00915914

TURBULENT AIR CLEANING METHOD AND APPARATUS FOR CATHETER ASSEMBLIES

PROCEDE ET DISPOSITIF DE NETTOYAGE PAR AIR TOURBILLONNAIRE D'ENSEMBLES A CATHETERS

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2001US48972 20011217 (PCT/WO US0148972)

Priority Application: US 2000741769 20001219

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CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU

SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6650

English Abstract

A method and apparatus are provided for cleaning a medical device tube, for example a catheter tube (34). The distal end portion (36) of the tube (34) has a distal opening (38) and at least one side opening (40) adjacent to the distal opening (38). The distal end of the tube is disposed in a closed chamber with the distal opening generally opposite from a first orifice defined in the chamber. A liquid is introduced into the chamber and is drawn into the distal opening in the tube, for example by a suction force. A different fluid medium, such as air, is drawn

through the first orifice and into the distal opening in the tube. A turbulent flow path is established with the fluid medium wherein the medium is drawn through the first orifice, into the distal opening in the tube, out the side opening in the tube, and back into the distal opening in the tube. This turbulent flow path enhances the cleaning action of the liquid introduced into the chamber for cleaning the distal end portion of the tube within the chamber.

International Patent Class: **A61B-019/00** ...

... **A61B-019/02**

Fulltext Availability: Detailed Description

Detailed Description

... lavage solution being directed radially inward towards the distal tip 42 and side or lateral **openings** 40 so that the solution may be completely removed from within the cleaning chamber 62. Once the entire process is complete, the cap ring 84 and **plug** member 78 may be used to seal or cover the distal **opening** of the adaptor 14 until the **catheter** assembly 10 is needed again....

11/3,AB,K/10 (Item 6 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00827086

URODYNAMIC CATHETER AND METHODS OF FABRICATION AND USE

CATHETER URODYNAMIQUE ET PROCEDES DE FABRICATION ET D'UTILISATION

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200160249 A1 20010823 (WO 0160249)

Application: WO 2001US4749 20010214 (PCT/WO US0104749)

Priority Application: US 2000504972 20000215

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DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ

TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 8675

English Abstract

A urodynamic catheter (10) incorporating at least one balloon (22) adjacent a distal end (16) thereof and associated with a pressure lumen (20a, 20b) extending to a proximal end (18) to be placed external to the body of a patient and usable with a transducer housing (300) including a pressure transducer (308) and a mechanism for alternatively venting an

air column defined by the assembled pressure lumen (20a, 20b) and transducer housing (300) to the ambient environment and closing the air column and charging it with air while reducing volume of the air column. One embodiment (10) includes two, separately-chargeable balloons (22a, 22b) and a bladder fill tube, another embodiment (100) includes a single balloon (22) and a fill tube (14), and yet another embodiment (200), suitable for use as a reference catheter to measure abdominal pressure, includes only a single balloon (22) and omits the fill tube.

Main International Patent Class: **A61B-005/03**

Fulltext Availability: Detailed Description

Detailed Description

... longitudinal balloon ends, or cuffs, to the outer tubing 12 using a highly directional, hot- **air stream**. The balloons are baked at an elevated temperature, such as about 60°C for about forty minutes to stabilize their respective volumes. Subsequently, a male **plug** element or cap 38 is placed on the fill **tubing** connector 36, and the **catheter** is leak-tested, as known in the art.

Referring to FIGS. 5A through E and...

11/3,AB,K/12 (Item 8 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00379757

PULMONARY INTERFACE SYSTEM

INTERFACE PULMONAIRE

Patent Applicant/Assignee:

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TAYLOR Thomas T,
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Patent and Priority Information (Country, Number, Date):

Patent: WO 9720500 A1 19970612

Application: WO 96US19054 19961127 (PCT/WO US9619054)

Priority Application: US 95567173 19951205

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GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX

NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ

UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC

NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 14487

English Abstract

A device (12) for sensing the respiratory air of a patient. The device includes a venturi tube (18) through which the patient inspires and expires, the tube having a constricted midportion (20). The tube also has an inspiration orifice (48), an expiration orifice (46), and a central orifice therebetween. An air mass flow sensor is positioned in the tube. A flow direction housing (24) is attached to the tube and has a channel (74) with an inspiration portion, an expiration portion, and a central portion therebetween. The housing also has an inspiration opening (68) providing communication between the tube inspiration orifice (88) and an end portion of the inspiration channel away from the central channel portion, an expiration opening (66) providing communication between the

tube expiration orifice (88) and an end portion of the expiration channel portion, and a central opening (64) providing communication between the tube central orifice (44) and the central channel portion. This causes a flow of a portion of the respiratory air which the patient inspires to pass through the tube inspiration orifice and flow through the inspiration channel portion to the housing central opening, and a flow of a portion of the respiratory air which the patient expires to pass through the tube expiration channel portion to the housing central opening for return to the venturi tube at the tube constricted portion. A flow direction sensor is positioned in the inspiration channel portion and a flow direction sensor is positioned in the expiration channel portion to produce outputs responsive to the flow of respiratory air through the inspiration and expiration channel portions for determining if the respiratory air flowing through the venturi tube is inspired or expired air.

Main International Patent Class: A61B-005/087

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... venturi tube by a plug positioned in the conduit central opening. The plug has an **air passage** therethrough communicating with the central **conduit** portion and the **tube** constricted portion. .

The device further includes a housing with an outward housing portion I 0...of the flow direction indicator housing 24. The sensor plug 50 has an axially extending **air passage** 60 extending between the inward end 50a and outward end 50b of the **plug** 50 to allow air to pass therethrough. The inward end of the **air passage** 60 communicates with the midportion 20 of the venturi **tube** 18. The inward housing portion 32 of the flow direction indicator housing 24 has a...

...the exterior wall of the venturi tube 18 about the central orifice 44 such that **air flow** between the central **aperture** 64 outward of the sensor **plug** 50 and the venturi midportion 20 of the venturi **tube** passes only through the **air passage** 60 in the sensor **plug** .

The inward housing portion 32 also includes an expiration aperture 66 positioned toward an end...fills the compartment 58 seats the lead apertures 88 about the leads 86.

When the **air flow** within the venturi **tube** 18 is in the direction of arrow ...as occurs on inspiration, a reduced pressure is produced in the midportion 20 of venturi **tube** 18 at the inward end of the **air passage** 60 of the sensor **plug** 50. This reduced pressure creates an **air flow** in the channel 74, with the direction being from the expiration **aperture** 66 to the central **aperture** 64 and through the **air passage** 60 on expiration (arrow 16), and with the direction being from the inspiration **aperture** 68 to the central **aperture** 64 and through the **air passage** 60 on inspiration (arrow 14). When expiration (arrow 16) takes place a larger **air flow** occurs in a portion of the channel 74 in which the expiration thermistor 26 is positioned, and thus the **air flow** past the expiration thermistor 26 is greater than the **air flow** past the inspiration thennistor 28, and when inspiration (arrow 14) takes place a larger **air flow** occurs in a portion of the channel 74 in which the inspiration thermistor 28 is positioned, and thus the **air flow** past the inspiration

I 0

therinistor 28 is greater than the **air flow** past the expiration

thermistor 26. The expiration and inspiration thermistors 26 and 28 are self...

...by the thermistors, it is possible to determine with high speed and accuracy whether the ~~air~~ **air** flow rate is larger past the expiration thermistor 26 or the inspiration thermistor 28, and hence the direction of the **air** flow within the venturi **tube** 18. This identifies whether the **air** flow is expired air or inspired air.

Because the expiration and inspiration thermistors 26 and 28...the inspiration channel portion 116 from each other, and the sensor plug 50 has two **air** passages, an expiration **air** passage 60a which communicates the expiration channel portion 114 with the midportion 20 of the venturi **tube** 18, and an inspiration **air** passage 60b which communicates the inspiration channel portion 116 with the midportion 20 of the venturi **tube**. Except for the separation of the flows, the respiratory air sensing device 12 of Figure...

...present invention is shown in Figure 14 which utilizes a sensor plug 50 without the **air** passage 60. Instead, the I O central portion of the channel 74 communicates with the exterior of the flow direction indicator housing 24, at a location outside of the venturi **tube** 18, through a **conduit** 120 formed in a sidewall portion of the outward housing portion 30. In the embodiment of Figure 14, the **conduit** 120 is shown connected by a **tube** 122 to a sample container 124, via a one-way fitting 126 to allow a...

...sample of 5 the breath of a patient. The constricted midportion 20 of the venturi **tube** 18 will cause pressure within the venturi **tube** to build when a patient expires air into the first end **opening** 38 of the venturi **tube**, or inspires air into the second end **opening** 40 of the venturi **tube**. This will cause a flow of air through the channel 74, much as described above except the air path is to the outside of the venturi **tube** instead of into the midportion 20 thereof. To insure sufficient pressure is built up inside the venturi **tube** 18 during expiration to force air through the channel 74 and out of the **conduit** 120, especially when the sample container 124 is used to take an air sample of...

...end cap 128 can be momentarily positioned to at least partially close the second end **opening** 40 of the venturi **tube**. Alternatively, the hand of the patient may be used to partially close the second end **opening** 40.

Accordingly, the present invention allows rapid and accurate measurements of the volume of a...

Claim

... being positioned in said tube central orifice and said housing central opening, and has an **air** passage therethrough communicating with said central channel portion and said **tube** midportion.

10 The respiratory air sensing device according to claim 9 wherein said Plug is...venturi tube by a plug positioned in said housing central opening, said plug having an **air** passage therethrough communicating with said central channel portion and said **tube** constricted portion.

23 The respiratory air sensing device according to claim 15 wherein said housing...

...venturi tube by a plug positioned in said housing central opening, said plug having an **air** passage therethrough communicating with said central channel portion and said **tube** constricted portion, said **plug** being sealingly mounted in said housing central **opening** of said inward housing portion and sealingly engages said venturi **tube** about said **tube** central orifice to provide a seal between said venturi **tube** and

said inward housing portion.

25 The respiratory air sensing device according to claim 23...venturi tube by a plug positioned in said conduit central opening, said plug having an **air passage** therethrough communicating with said central **conduit** portion and said **tube** constricted portion.

37 The respiratory air sensing device according to claim 29, further including a...venturi tube by a plug positioned in said conduit central opening, said plug having an **air passage** therethrough communicating with said central channel portion and said **tube** constricted portion, said **plug** being sealingly mounted in said **conduit** central **opening** of said inward housing portion and sealingly engaging said venturi **tube** about said **tube** central orifice to provide a seal between said venturi **tube** and said inward housing portion.

39 The respiratory air sensing device according to claim 29...

11/3,AB,K/13 (Item 9 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00352051

MULTIPLE CUFF BLOOD PRESSURE SYSTEM

TENSIOMETRE A PLUSIEURS BRASSARDS

Patent Applicant/Assignee:

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Inventor(s):

MARKS Lloyd A,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9634564 A1 19961107

Application: WO 96US2437 19960304 (PCT/WO US9602437)

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GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL

PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ

BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 3583

English Abstract

A multiple blood pressure cuff system comprises a plurality of inflatable cuffs (12a-12e) of a range of widths and lengths which collectively share a common pressure source (14) and a common pressure measuring device (16). A manifold (18) pneumatically connects each cuff (12a-12e) to the common pressure source (14), pressure measuring device (16), and stopcock valves (20a-20e) allow airflow to be directed to the particular cuff in use. A mounting board (24) is provided for affixing the system to a wall or cabinet and for conveniently supporting and displaying the cuffs (12a-12e) that are not in use.

Main International Patent Class: **A61B-005/00**

Fulltext Availability: Detailed Description

Detailed Description

... five-position stopcock-type valve comprising a valve body 40 with a cylindrical gate or **plug** 42 that is adapted to be rotated about its central axis by means of a...

...air inlet pipe 48 is connected centrally to valve body 40 so as to admit **air flow** as depicted by arrow D into the chamber 50 of cylindrical gate or **plug** 42 from an inflation means, such as a pressure pump or inflation bulb 14. A manometer or pressure gauge 52 is connected to the

chamber 50 of gate or ~~plug~~ 42 by means of a **pipe** 54 so as to measure the air pressure in ~~chamber~~ 50.
Flexible tubes 26a-26e...

11/3,AB,K/14 (Item 10 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00213755

BRONCHOALVEOLAR LAVAGE CATHETER

CATHETER DE LAVAGE BRONCHO-ALVEOLAIRE

Patent Applicant/Assignee:

BALLARD MEDICAL PRODUCTS,

Inventor(s):

STRICKLAND Richard D,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9210971 A1 19920709

Application: WO 91US9732 19911220 (PCT/WO US9109732)

Priority Application: US 90638 19901221; US 91379 19911219

Designated States: AT AU BE CA CH DE DK ES FR GB GR IT JP LU MC NL SE

Publication Language: English

Fulltext Word Count: 12630

English Abstract

An outer catheter (72) so sized and configured so as to extend from a point below the first bifurcation of the trachea through the upper respiratory system of the patient is disposed about an inner catheter (62) having a tip (75) secured in the opening at the distal end (74) thereof with an outer lateral periphery larger indiameter than the outer surface of the inner catheter. A passageway (76) is formed between said outer catheter (72) and said inner catheter (62). A connector hub assembly (77), connected to the proximal end (73) of the outer catheter (72) and couplable to a supply of oxygen, allows for oxygen insufflation to take place during the bronchoalveolar lavage procedure. The proximal surface of the tip (75) between the outer lateral periphery and the outer surface of the inner catheter (62) is capable of sealingly engaging the distal end (74) of the outer catheter (72). In this condition the pair of catheters can be advanced through the upper respiratory system of the patient without contaminating the outer surface of the inner catheter (62). Thereafter the inner catheter (62) is advanced relative to the outer catheter (72) into a wedging position in a bronchiole of the patient. In one embodiment, the inner catheter is provided with a selectively inflatable cuff by which to engage the walls of a bronchiole of the patient.

Main International Patent Class: **A61B-005/00**

Fulltext Availability: Detailed Description

Detailed Description

... quantity of fluid 120 from reservoir 46 (Figure 1) is used to flush any **plug** of contaminatddd mucous from aperture 108 in tip 75. Fluid 120 passes harmlessly into the...

...as bronchiole 122a in Figure 7D . Wedging may be verified through the appropriate use of **air passageway** pressure monitor 50. Longitudinal movement of sampling **catheter** 62 thereafter is advisedly restrained by suitable means, such as those locatable in bronchoalveolar lavage **catheter** access port 44 (Figure 1).

Thereafter,, fluid from reservoir 46 is infused into the position...

18/3,AB,K/1 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT
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00195422

SOFT TISSUE ASPIRATION DEVICE AND METHOD
DISPOSITIF ET PROCEDE D'ASPIRATION DE TISSUS MOUS

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Inventor(s):

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9112774 A1 19910905

Application: WO 91US275 19910114 (PCT/WO US9100275)

Priority Application: US 9081 19900226; US 90679 19901009

Designated States: AT BE CH DE DK ES FR GB GR IT JP LU NL SE

Publication Language: English

Fulltext Word Count: 8021

English Abstract

A laser soft tissue aspiration device (10) comprises an aspiration cannula (12) housing a laser energy transmitting means (32) for conducting laser energy to the site within a patient's body for aspiration of soft tissue. The cannula is provided with an aspiration inlet port (20) adjacent the cannula distal end (18). The proximal end of the cannula is provided with fluid flow connection (28) to an aspiration source. A laser guide tube is additionally provided housing the laser energy transmitting means (32) extending longitudinally within the cannula lumen from a laser energy source at the cannula proximal end and terminating at a point immediately prior to the aspiration inlet port (20). The tube also provides a conduit for transmitting cooling and cleaning fluid flow for the laser energy transmitting means. A surgical method of aspirating soft tissue from a patient in vivo using this device is also provided transmitting means. Separated soft tissue and fluid is aspirated through the aspiration inlet port and the cannula by means of an aspiration source at the proximal end of the cannula.

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... patient in vivo, This invention has immediate and direct application to the surgical procedure of **liposuction** or body contouring as well as application in the surgical procedures of other soft tissue...

...possibility of unwanted damage to deeper tissues in the path of the laser energy beam.

Liposuction , a surgical technique of removing unwanted fat deposits for the purpose of body contouring, has achieved widespread use, In the United States, over 100,000 **liposuction** procedures were performed in 1989 alone. This technique utilizes a hollow tube or cannula with...with minimal tissue trauma and blood loss.

This invention utilizes a modification of a suction **lipectomy** cannula, already in clinical use, to position soft tissue within a protective chamber, allowing a...

...more efficient) and minimizes tissue-trauma by eliminating the ripping action inherent in the conventional **liposuction** method.

This invention, by eliminating the ripping action of the conventional **liposuction** method, expands the scope of soft tissue removal. Currently, the **liposuction** method is limited to the aspiration of fat, Other soft tissues, such as breast tissue...

...hemangiomas are too dense or too vascular to allow efficient and safe removal utilizing the **liposuction** method. This invention with the precise cutting and coagulating action of the Neodymium-YAG laser...cut-away detail of the first laser soft tissue device illustrated in position for performing **liposuction** within a fatty deposit of a body intermediate overlying epidermal layer and underlying muscle layer...accommodate the external diameters of the large 32 and small guide tubes 36. The guide **tube** components are joined together and to the proximal handle end cap 26 and within the aspiration **cannula** inner wall utilizing a means such as soldering or welding. The fluid and laser guide **tube** is provided with an O-ring seal 46 at its retention within the proximal handle...

...at the laser energy source port 41, Housed within the fluid and laser fiber guide **tube** is the laser fiber optic delivery system 62, shown in Figures 1, 21 31 41 5 and 6, and consists of the Teflon coaxial fluid delivery **tube** 44, the Teflon laser fiber sheath 50, and the laser fiber 54, having laser discharge axis 58, The Teflon coaxial fluid delivery **tube** 44 is connected to a saline fluid source and pump integral with the laser energy...

...the handle 16, through the fluid and laser guide channel 30 into the large guide **tube** 32, terminating at a point 48 within the large guide - 10 **tube** , The large guide **tube** 32 is maintained in position within **cannula** 12, for example, by silver solder through **holes** 37, as illustrated in Figures 2 and 3, The Teflon coaxial fluid delivery **tube** delivers cooling and irrigating fluid into the fluid and laser large guide **tube** 32, the fluid passes distally within the guide **tube** 32 surrounding the Teflon laser fiber sheath 50 and laser fiber 54 to the terminal point of the small guide **tube** 36, The laser fiber 54 constitutes the laser energy transmitting means, extending from the laser...

...point 56 immediately prior to the terminal point of the fluid and laser fiber guide **tube** 40, The retention of the laser fiber optic system 62 is accomplished by a retaining...

...modifications of the preferred configuration of the present invention which allow the soft tissue aspiration **cannula** to accommodate an alternative fiber optic delivery system 64 (Figure 9) which does not incorporate a Teflon coaxial fluid delivery **tube**, A bushing 68 is positioned within the fluid and laser guide channel 30 to allow a fluid and air-tight seal at the fluid and energy source port 41, An optional fluid delivery port...

...fluid source and pump (not shown), This port 66 is fitted with a fluid and air tight **plug** 60 when the Teflon coaxial fluid delivery **tube** is used. As will be apparent to those skilled in this art, a shorter and...

Claim

... said laser energy transmitting means to the laser guide tube termination point.

18 A laser **liposuction** device according to claim 17, wherein the laser energy source is a neodymium-YAG laser.

19 A laser **liposuction** device according to claim 17, wherein the aspiration cannula is formed of stainless steel and is formed with a generally rounded or bullet-shaped distal end.

20e A laser **liposuction** device according to claim 17, wherein the length of the cannula is between about 11...

...diameter is between about 0.156 inches to about 0.312 inches.

21 A laser **liposuction** device according to claim 17, wherein the proximal end of the laser guide tube is provided with an O-ring seal.

22 A laser **liposuction** device according to claim 17, wherein the laser energy transmitting means is a fiber optic...